



Plastics Interlaboratory Testing Program

Web Summary Report #123, 3rd Qtr 2022

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About CTS and the Plastics Interlaboratory Program

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color, agriculture, hemp, and wine, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 100 countries currently participate in CTS programs.

Collaborative Testing Services initiated the Collaborative Reference Program for PLASTICS in 1992 at the request of industry, ASTM committee D-20 members, and accrediting bodies. Additional test methods are always under review and are incorporated into the program when possible.

The program allows laboratories to compare periodically the level and uniformity of their testing with that of other participating laboratories. It also provides a realistic assessment of the state of plastics testing proficiency.

For each test there is a summary of the statistics for the analysis and a graphical representation of the data. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Refer to the KEY FOR SUMMARY REPORT for an explanation of terms and guidelines for interpreting the results.

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Key for Web Summary Report (Page 1 of 2)

WebCode	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Plastics Web Summary Report published on the CTS web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.
Lab Mean	The average of the test results obtained by the participant.
Grand Mean	The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.
Difference from Grand Mean	The difference of the LAB MEAN from the GRAND MEAN.
Between-Lab Standard Deviation	An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).
Comparative Performance Value	An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.
Inst Code	A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section) if instruments are tracked.
Data Flag	DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample.

Graph - For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the GRAND MEANS for each sample. When 20 or more laboratories are in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above.

Common Problems Highlighted in Footnotes

1. **Extreme data** - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. The participant is advised to immediately review his data and/or testing procedure.
2. **Systematic bias** - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.
3. **Inconsistency in testing between samples/sample sets** - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an * that falls on the edge of the ellipse.
4. **Inconsistency in testing within a sample** - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.

Labs flagged with an * are not typically included in the footnotes of a data table. These labs may locate their position in the control ellipse and use the definitions above to help identify the type of testing error. An * should serve as a caution flag, a "yellow light", to a lab. If this error is repeated in future rounds, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm. Interlaboratory tests conducted at regular intervals permit a lab to recognize trends in testing.



Plastics Interlaboratory Testing Program

Results Summary for Report #123, 3rd Qtr 2022

Analysis 704 - Tensile Stress at Yield

Material: ABS	Sample F85	6,620.91	psi	2.93% COV
	Sample F86	6,611.85	psi	3.07% COV

Analysis 705 - Tensile Stress at Break

Material: ABS	Sample F85	5,090.20	psi	5.10% COV
	Sample F86	5,083.35	psi	4.97% COV

Analysis 706 - Percent Elongation at Yield

Material: ABS	Sample F85	2.4710	Percent	2.96% COV
	Sample F86	2.4732	Percent	2.90% COV

Analysis 708 - Modulus of Elasticity

Material: ABS	Sample F85	347.62	ksi	4.54% COV
	Sample F86	345.58	ksi	4.89% COV

Analysis 710 - Deflection Temp. Under Flexural Load (1.82 MPa)

Material: ABS/PC	Sample E85	104.54	Degrees C	2.71% COV
	Sample E86	104.85	Degrees C	3.21% COV

Analysis 711 - Deflection Temp. Under Flexural Load (0.455 MPa)

Material: PP	Sample G85	111.45	Degrees C	3.74% COV
	Sample G86	111.52	Degrees C	3.29% COV

Analysis 712 - Temperature of Deflection (1.80 MPa)

Material: HIPS	Sample N85	75.388	Degrees C	1.11% COV
	Sample N86	75.416	Degrees C	1.05% COV

Analysis 715 - Vicat Temperature (Rate A)

Material: ABS	Sample H85	101.77	Degrees C	2.64% COV
	Sample H86	101.80	Degrees C	2.64% COV

Analysis 716 - Vicat Temperature (Rate B)

Material: ABS	Sample R85	103.24	Degrees C	2.92% COV
	Sample R86	103.27	Degrees C	2.87% COV

Analysis 718 - Specific Gravity

Material: ABS/PC	Sample T85	1.1377	sp gr 23/23 C	0.175% COV
	Sample T86	1.1377	sp gr 23/23 C	0.185% COV

Analysis 720 - Flexural Modulus

Material: HIPS	Sample J85	268.43	ksi	4.61% COV
	Sample J86	268.80	ksi	4.91% COV

Analysis 721 - Flexural Stress at 5% Strain

Material: HIPS	Sample J85	5,455.66	psi	4.89% COV
	Sample J86	5,462.90	psi	5.51% COV

Analysis 722 - Flexural Stress at Yield

Material: HIPS	Sample J85	5,464.67	psi	3.98% COV
	Sample J86	5,460.42	psi	4.73% COV

Analysis 730 - Tensile Stress at Yield, ISO Method

Material: HIPS	Sample C85	23.469	MPa	2.77% COV
	Sample C86	23.469	MPa	3.01% COV

Analysis 731 - Tensile Stress at Break, ISO Method

Material: HIPS	Sample C85	17.982	MPa	2.75% COV
	Sample C86	17.994	MPa	3.18% COV



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Analysis 732 - Strain at Yield, ISO Method

Material: HIPS	Sample C85	1.4996	Percent	4.52% COV
	Sample C86	1.5020	Percent	4.99% COV

Analysis 734 - Modulus of Elasticity, ISO Method

Material: HIPS	Sample C85	1,774.19	MPa	6.04% COV
	Sample C86	1,770.53	MPa	6.49% COV

Analysis 736 - Flexural Modulus

Material: HIPS	Sample K85	1,786.59	MPa	3.83% COV
	Sample K86	1,787.57	MPa	3.98% COV

Analysis 737 - Flexural Stress at 3.5% Strain

Material: HIPS	Sample K85	37.229	MPa	3.58% COV
	Sample K86	37.202	MPa	3.67% COV

Analysis 738 - Flexural Stress at Yield

Material: HIPS	Sample K85	37.375	MPa	3.95% COV
	Sample K86	37.434	MPa	4.02% COV

Analysis 750 - Flow Rate (190C or 230C/2.16 kg)

Material: LDPE	Sample X85	6.6251	grams/10 mins	3.94% COV
	Sample X86	6.6111	grams/10 mins	3.66% COV

Analysis 755 - Moisture Content

Material: HIPS	Sample Y85	0.02400	Percent	35.3% COV
	Sample Y86	0.02517	Percent	39.3% COV

Analysis 757 - Ash Content

Material: PP	Sample L85	20.697	Percent	0.396% COV
	Sample L86	20.695	Percent	0.302% COV

Analysis 758 - TGA

Material: PBT	Sample A85	64.058	Percent	13.1% COV
	Sample A86	62.656	Percent	12.0% COV

Analysis 760 - DSC Crystallization Temperature

Material: PP	Sample W85	120.55	Degrees Celsius	2.99% COV
	Sample W86	120.57	Degrees Celsius	2.85% COV

Analysis 761 - DSC Melt Temperature

Material: PP	Sample W85	164.63	Degrees Celsius	1.16% COV
	Sample W86	164.71	Degrees Celsius	1.09% COV

Analysis 762 - DSC Enthalpy of Crystallization

Material: PP	Sample W85	103.06	Joules Per Gram	10.1% COV
	Sample W86	103.57	Joules Per Gram	9.58% COV

Analysis 763 - DSC Enthalpy of Fusion

Material: PP	Sample W85	101.30	Joules Per Gram	11.4% COV
	Sample W86	101.71	Joules Per Gram	11.4% COV

Analysis 764 - DSC Glass Transition Temperature

Material: ABS	Sample V85	107.88	Degrees Celsius	2.58% COV
	Sample V86	107.94	Degrees Celsius	2.70% COV

Analysis 765 - Research Crystallization Peak Temperature

Material: PP	Sample W85	120.03	Degrees Celsius	3.00% COV
	Sample W86	120.25	Degrees Celsius	2.98% COV



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Results Summary for Report #123, 3rd Qtr 2022

Analysis 766 - Research Melting Peak Temperature

Material: PP	Sample W85	164.19	Degrees Celsius	1.20% COV
	Sample W86	164.20	Degrees Celsius	0.930% COV

Analysis 767 - Research Heat of Crystallization

Material: PP	Sample W85	106.00	Joules Per Gram	10.4% COV
	Sample W86	106.37	Joules Per Gram	9.84% COV

Analysis 768 - Research Heat of Fusion

Material: PP	Sample W85	104.86	Joules Per Gram	12.6% COV
	Sample W86	104.29	Joules Per Gram	12.1% COV

Analysis 769 - Research Glass Transition Temperature

Material: ABS	Sample V85	107.28	Degrees Celsius	1.87% COV
	Sample V86	107.06	Degrees Celsius	1.85% COV

Analysis 770 - Tensile Stress at Yield, Films

Material: LDPE	Sample B85	2,122.00	psi	14.6% COV
	Sample B86	2,097.85	psi	9.85% COV

Analysis 771 - Tensile Stress at Break, Films

Material: LDPE	Sample B85	4,189.48	psi	14.3% COV
	Sample B86	4,134.33	psi	13.3% COV

Analysis 772 - Elongation at Yield, Films

Material: LDPE	Sample B85	83.723	Percent	44.8% COV
	Sample B86	84.379	Percent	44.3% COV

Analysis 773 - Elongation at Break, Films

Material: LDPE	Sample B85	826.39	Percent	18.7% COV
	Sample B86	818.37	Percent	19.3% COV

Analysis 774 - Thickness of Film Specimens

Material: LDPE	Sample B85	3.9945	mils	4.09% COV
	Sample B86	3.8767	mils	3.47% COV

Analysis 775 - Secant Modulus at 1% Strain

Material: LDPE	Sample B85	35,087.14	psi	26.5% COV
	Sample B86	33,018.00	psi	18.6% COV

Analysis 776 - Secant Modulus at 2% Strain

Material: LDPE	Sample B85	32,555.36	psi	30.7% COV
	Sample B86	31,202.86	psi	28.6% COV

Analysis 780 - Static Friction

Material: LDPE	Sample P85	0.16107	COF	31.3% COV
	Sample P86	0.18547	COF	23.3% COV

Analysis 781 - Kinetic Friction

Material: LDPE	Sample P85	0.11601	COF	41.5% COV
	Sample P86	0.14843	COF	25.7% COV

Analysis 782 - Tear Resistance of Film

Material: LDPE	Sample Q85	317.31	grams-force	11.3% COV
	Sample Q86	412.94	grams-force	20.0% COV

Analysis 785 - Percent Haze

Material: LDPE	Sample D85	11.754	Percent	5.25% COV
	Sample D86	20.071	Percent	5.36% COV



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Results Summary for Report #123, 3rd Qtr 2022

Analysis 786 - Total Transmittance

Material: LDPE	Sample D85	92.484	Percent	1.14% COV
	Sample D86	92.454	Percent	1.23% COV

Analysis 790 - Notched Izod Impact

Material: HIPS	Sample S85	1.9369	ft.lbf/in	10.2% COV
	Sample S86	1.9599	ft.lbf/in	10.6% COV

Analysis 791 - Notched Izod Impact

Material: HIPS	Sample Z85	9.4606	kJ/m ²	6.95% COV
	Sample Z86	9.4221	kJ/m ²	5.58% COV

Analysis 792 - Notched Charpy Impact

Material: HIPS	Sample M85	9.3746	kJ/m ²	4.71% COV
	Sample M86	9.3932	kJ/m ²	4.08% COV



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Report #123

Analysis 704

3rd Qtr 2022

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2V23Z8		6,850.0	229.1	1.18	6,858.0	246.1	1.21
3637T3		6,455.6	-165.3	-0.85	6,414.4	-197.5	-0.97
3MAU8U		6,681.0	60.1	0.31	6,582.0	-29.9	-0.15
4PM7BN	*	6,743.0	122.1	0.63	6,582.0	-29.9	-0.15
6APE6D		6,712.0	91.1	0.47	6,717.0	105.1	0.52
6MX4Y9		6,745.6	124.7	0.64	6,726.2	114.3	0.56
6WYRQ6		6,498.9	-122.0	-0.63	6,481.0	-130.9	-0.65
6ZNBV		6,679.0	58.1	0.30	6,689.2	77.3	0.38
7CXYGK		6,656.0	35.1	0.18	6,620.8	8.9	0.04
8GKXF8		6,695.8	74.9	0.39	6,708.0	96.1	0.47
8MP24K		6,652.8	31.9	0.16	6,654.3	42.5	0.21
8Z3V4D	*	6,708.2	87.3	0.45	6,552.6	-59.2	-0.29
97H3W3		6,356.2	-264.7	-1.37	6,336.6	-275.3	-1.36
9JH48H	X	7,234.0	613.1	3.17	7,014.0	402.1	1.98
A7EWXJ		6,531.6	-89.3	-0.46	6,465.6	-146.3	-0.72
AEMJPK		6,863.8	242.9	1.25	6,864.1	252.3	1.24
C4YEQJ	*	6,709.8	88.9	0.46	6,543.2	-68.7	-0.34
C9PTAY		6,660.6	39.7	0.20	6,588.0	-23.9	-0.12
DHJZYJ		6,418.0	-202.9	-1.05	6,432.0	-179.9	-0.89
EGX6GF		6,284.0	-336.9	-1.74	6,252.0	-359.9	-1.77
EPCLFH		6,649.6	28.7	0.15	6,586.4	-25.4	-0.13
F8RFGQ		6,760.0	139.1	0.72	6,714.0	102.1	0.50
FQ2EN7		6,734.0	113.1	0.58	6,710.0	98.1	0.48
GBH9PC		6,834.0	213.1	1.10	6,814.0	202.1	1.00
GW6X4A		6,709.4	88.5	0.46	6,673.8	61.9	0.31
GXWY37	*	6,037.7	-583.2	-3.01	5,975.2	-636.7	-3.14
HDRD6L		6,591.6	-29.3	-0.15	6,609.1	-2.7	-0.01
HJRE7U		6,535.2	-85.7	-0.44	6,551.4	-60.4	-0.30
JA2XMN		6,783.0	162.1	0.84	6,796.8	184.9	0.91
JPK2Z		6,554.9	-66.0	-0.34	6,546.2	-65.7	-0.32
JNHPU4		7,075.6	454.7	2.35	7,051.2	439.4	2.17
K8BZ6A		6,466.0	-154.9	-0.80	6,460.0	-151.9	-0.75
LAV83C		6,903.9	282.9	1.46	6,961.9	350.0	1.73
LEAR7Q		6,738.5	117.6	0.61	6,811.0	199.2	0.98
LFKURP		6,608.4	-12.5	-0.06	6,605.2	-6.7	-0.03



Plastics Interlaboratory Testing Program

Report #123

Analysis 704

3rd Qtr 2022

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
LFY3WJ		6,397.4	-223.5	-1.15	6,384.6	-227.2	-1.12
M2A48N	*	6,450.8	-170.1	-0.88	6,605.2	-6.7	-0.03
MT3T8Q	X	7,355.8	734.9	3.79	7,428.6	816.8	4.03
NEF3PZ		6,724.0	103.1	0.53	6,722.0	110.1	0.54
NPZAQA		6,705.6	84.7	0.44	6,689.8	77.9	0.38
PCATG3		6,787.8	166.9	0.86	6,793.6	181.8	0.90
PD2QRV		6,699.7	78.7	0.41	6,758.4	146.5	0.72
PV6HDW		6,725.7	104.8	0.54	6,745.8	133.9	0.66
PXR64Y		6,478.8	-142.1	-0.73	6,481.0	-130.9	-0.65
Q6GTXM		6,596.4	-24.5	-0.13	6,582.2	-29.7	-0.15
QDHFE8		6,552.8	-68.1	-0.35	6,520.0	-91.9	-0.45
QM9YV2		6,862.0	241.1	1.24	6,925.6	313.7	1.55
QNXLXP	*	6,606.4	-14.5	-0.07	6,742.8	130.9	0.65
QYVCN3		6,611.2	-9.7	-0.05	6,632.6	20.7	0.10
RC3R48		6,693.8	72.9	0.38	6,662.8	50.9	0.25
T8JUBA		6,266.0	-354.9	-1.83	6,300.6	-311.3	-1.53
UNRYHM	*	6,054.0	-566.9	-2.93	6,014.0	-597.9	-2.95
V344ZZ		6,226.2	-394.7	-2.04	6,238.0	-373.9	-1.84
V986ZU		6,566.0	-54.9	-0.28	6,504.0	-107.9	-0.53
VERP7A		6,716.4	95.5	0.49	6,747.8	135.9	0.67
VPE9HE		6,572.4	-48.5	-0.25	6,565.6	-46.3	-0.23
Y7AVJN		6,631.8	10.9	0.06	6,611.8	-0.1	0.00
YXZBFR		6,947.7	326.8	1.69	6,951.0	339.1	1.67
ZA2GPG		6,662.0	41.1	0.21	6,700.0	88.1	0.43
ZDP2QE		6,540.7	-80.2	-0.41	6,572.3	-39.6	-0.20
ZMA8MH		6,673.8	52.9	0.27	6,677.9	66.0	0.33
ZZZU2Q		6,621.6	0.7	0.00	6,648.6	36.7	0.18

Summary Statistics

Grand Means

Sample F85
6,620.91 psi

Sample F86
6,611.85 psi

Std Dev Btwn Labs

193.69 psi

202.79 psi

Statistics based on 60 of 62 reporting participants

Sample F85: ABS & Sample F86: ABS



Plastics Interlaboratory Testing Program

Analysis 704

Tensile Stress at Yield - psi

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Comments on Assigned Data Flags for Test #704

MT3T8Q (X) - Data for both samples are high. Possible Systematic Error.

9JH48H (X) - Data for sample F85 are high.



Plastics Interlaboratory Testing Program

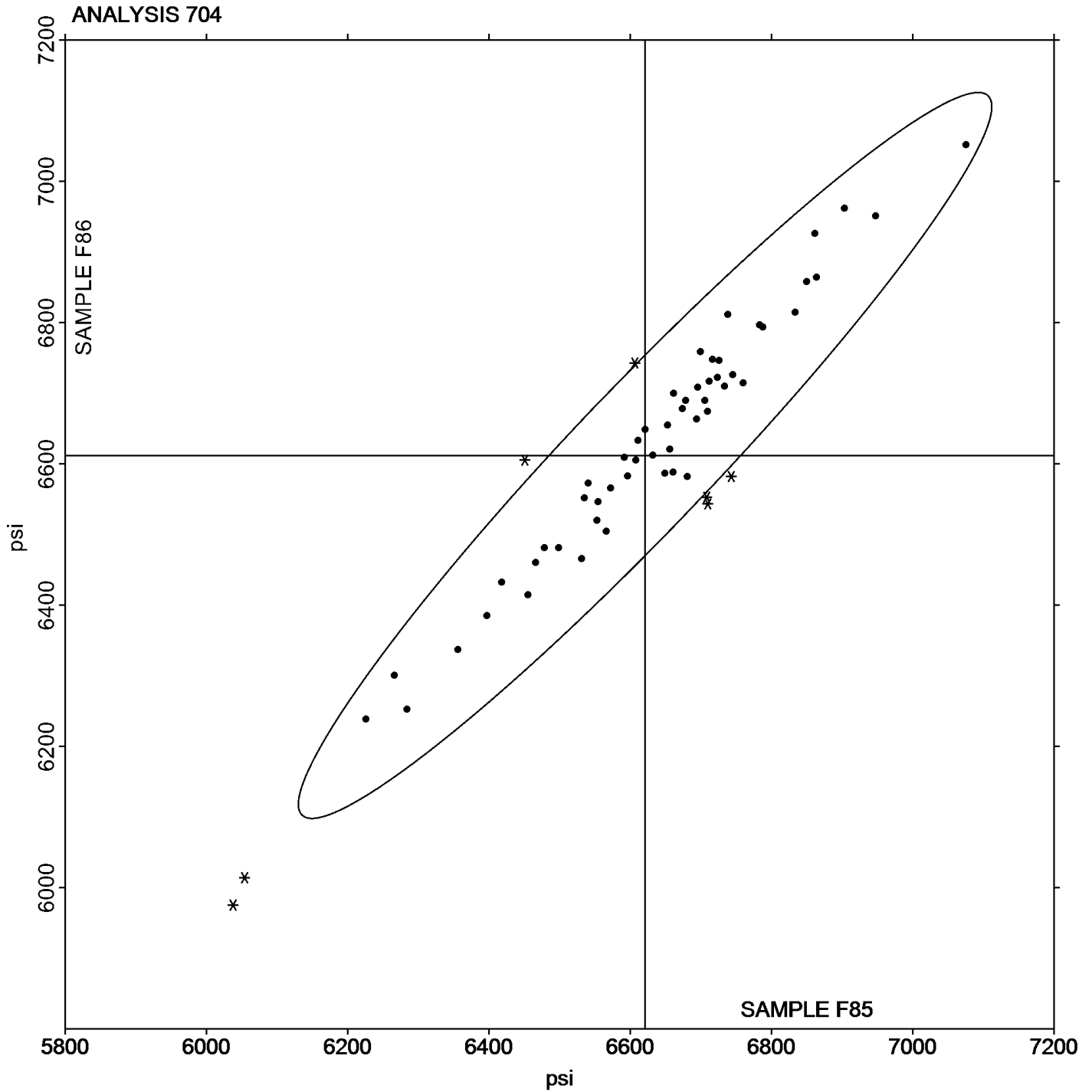
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Tensile Stress at Yield - psi

Grand Mean Sample F85: 6,620.91 psi Grand Mean Sample F86: 6,611.85 psi





Plastics Interlaboratory Testing Program

Report #123

Analysis 705

3rd Qtr 2022

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2V23Z8		5,198.2	108.0	0.42	5,284.4	201.0	0.80
3637T3		5,021.0	-69.2	-0.27	4,823.8	-259.6	-1.03
3MAU8U		5,221.8	131.6	0.51	5,376.2	292.8	1.16
4PM7BN		5,190.2	100.0	0.39	5,062.6	-20.8	-0.08
6APE6D		5,197.6	107.4	0.41	5,386.8	303.4	1.20
6MX4Y9		5,360.2	270.0	1.04	5,307.6	224.2	0.89
6WYRQ6		4,957.8	-132.4	-0.51	4,911.6	-171.8	-0.68
6ZNBV		4,940.0	-150.2	-0.58	4,900.9	-182.5	-0.72
7CXYGK		4,865.8	-224.4	-0.87	4,930.8	-152.6	-0.60
8GKXF8		5,189.2	99.0	0.38	5,240.4	157.0	0.62
8MP24K		5,399.7	309.5	1.19	5,463.8	380.5	1.51
8Z3V4D		5,211.0	120.8	0.47	5,109.4	26.0	0.10
97H3W3		4,942.4	-147.8	-0.57	4,892.6	-190.8	-0.76
9JH48H	*	5,750.4	660.2	2.55	5,518.4	435.0	1.72
A7EWXJ		4,599.2	-491.0	-1.89	4,826.6	-256.8	-1.02
AEMJPK		5,144.8	54.6	0.21	5,145.7	62.3	0.25
C4YEQJ		4,997.8	-92.4	-0.36	5,158.0	74.6	0.30
C9PTAY		5,143.8	53.6	0.21	5,077.0	-6.4	-0.03
DHJZYJ		4,952.0	-138.2	-0.53	5,080.0	-3.4	-0.01
EGX6GF		4,814.0	-276.2	-1.06	4,718.0	-365.4	-1.45
GBH9PC		5,326.0	235.8	0.91	5,198.0	114.6	0.45
GDPLD6		4,998.0	-92.2	-0.36	5,088.0	4.6	0.02
GW6X4A		5,233.2	143.0	0.55	5,039.5	-43.8	-0.17
GXWY37		5,196.2	106.0	0.41	5,115.6	32.3	0.13
HDRD6L		5,075.3	-14.9	-0.06	5,054.9	-28.5	-0.11
HJRE7U		4,836.8	-253.4	-0.98	4,996.6	-86.8	-0.34
JA2XMN		5,296.8	206.6	0.80	5,016.6	-66.8	-0.26
JPK2Z		4,840.8	-249.4	-0.96	4,828.6	-254.7	-1.01
JNHPU4	X	9,546.1	4,455.9	17.18	9,235.9	4,152.6	16.44
LAV83C		5,337.4	247.2	0.95	5,453.5	370.1	1.47
LEAR7Q		5,250.2	160.0	0.62	5,179.4	96.1	0.38
LFKURP		5,092.7	2.5	0.01	4,954.4	-129.0	-0.51
M2A48N		5,081.2	-9.0	-0.03	5,038.4	-45.0	-0.18
MT3T8Q	*	5,770.5	680.3	2.62	5,834.9	751.6	2.98
NEF3PZ		5,112.6	22.4	0.09	5,200.2	116.8	0.46



Plastics Interlaboratory Testing Program

Report #123

Analysis 705

3rd Qtr 2022

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NPZAQA		5,185.2	95.0	0.37	5,226.0	142.6	0.56
PCATG3		4,890.7	-199.5	-0.77	4,971.9	-111.4	-0.44
PD2QRV		5,387.3	297.1	1.15	5,435.1	351.7	1.39
PXR64Y		4,929.2	-161.0	-0.62	4,870.6	-212.8	-0.84
Q6GTXM		5,045.4	-44.8	-0.17	5,060.0	-23.4	-0.09
QDHFE8		5,006.2	-84.0	-0.32	5,047.8	-35.6	-0.14
QM9YV2		5,455.8	365.6	1.41	5,453.2	369.8	1.46
QNXLXP		5,129.2	39.0	0.15	5,018.8	-64.6	-0.26
RC3R48		5,065.8	-24.4	-0.09	4,941.2	-142.2	-0.56
T8JUBA	*	4,415.4	-674.8	-2.60	4,528.2	-555.2	-2.20
UNRYHM		4,642.0	-448.2	-1.73	4,766.0	-317.4	-1.26
V344ZZ	*	4,505.2	-585.0	-2.26	4,405.6	-677.8	-2.68
V986ZU		5,034.0	-56.2	-0.22	4,964.0	-119.4	-0.47
VERP7A		5,189.4	99.2	0.38	5,184.4	101.0	0.40
VPE9HE		5,290.2	200.0	0.77	5,058.6	-24.8	-0.10
Y7AVJN		5,211.0	120.8	0.47	5,187.4	104.0	0.41
YXZBFR		5,380.5	290.3	1.12	5,451.7	368.3	1.46
ZA2GPG		5,022.0	-68.2	-0.26	5,076.0	-7.4	-0.03
ZDP2QE		4,681.6	-408.6	-1.58	4,670.0	-413.4	-1.64
ZMA8MH		4,889.0	-201.2	-0.78	5,019.2	-64.1	-0.25
ZZZU2Q		5,061.0	-29.2	-0.11	5,035.4	-48.0	-0.19

Summary Statistics		
	Sample F85	Sample F86
Grand Means	5,090.20 psi	5,083.35 psi
Std Dev Btwn Labs	259.41 psi	252.62 psi
Statistics based on 55 of 56 reporting participants		

Sample F85: ABS & Sample F86: ABS

Comments on Assigned Data Flags for Test #705

JNHPU4 (X) - Data for both samples are high. Inconsistent within the determinations of sample F86.



Plastics Interlaboratory Testing Program

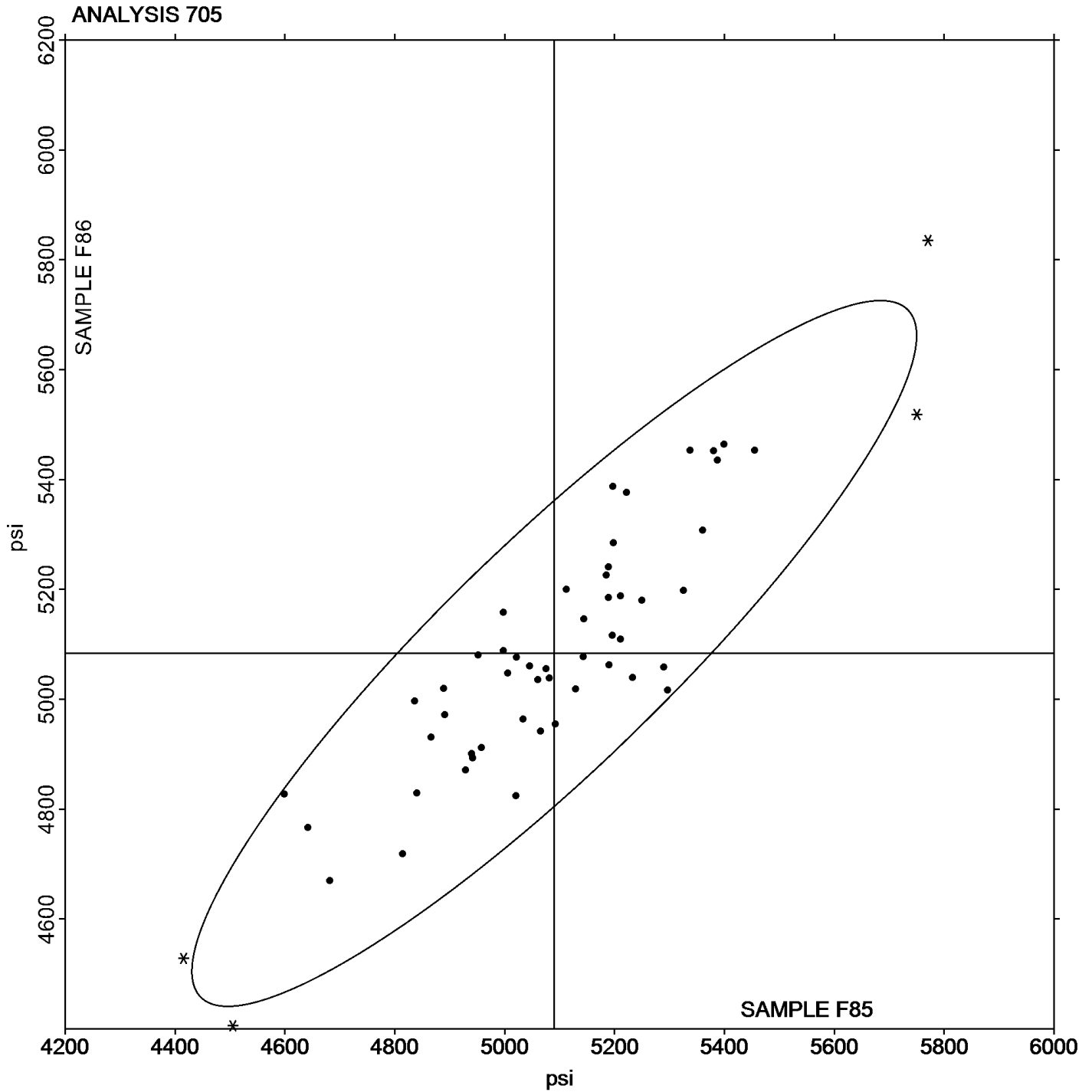
Analysis 705

Tensile Stress at Break - psi

Report #123

3rd Qtr 2022

Grand Mean Sample F85: 5,090.20 psi Grand Mean Sample F86: 5,083.35 psi





Plastics Interlaboratory Testing Program

Report #123

Analysis 706

3rd Qtr 2022

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2V23Z8		2.518	0.047	0.64	2.532	0.059	0.82
3MAU8U		2.570	0.099	1.35	2.492	0.019	0.26
4PM7BN		2.500	0.029	0.40	2.488	0.015	0.21
6APE6D		2.478	0.007	0.10	2.472	-0.001	-0.02
6MX4Y9		2.547	0.076	1.04	2.527	0.054	0.75
6WYRQ6		2.411	-0.060	-0.83	2.509	0.036	0.49
6ZNQBV		2.550	0.079	1.08	2.478	0.005	0.07
7CXYGK		2.590	0.119	1.63	2.566	0.093	1.29
8GKXF8		2.422	-0.049	-0.67	2.454	-0.019	-0.27
8MP24K		2.548	0.077	1.06	2.534	0.061	0.85
8Z3V4D		2.382	-0.089	-1.22	2.456	-0.017	-0.24
97H3W3	*	2.288	-0.183	-2.50	2.282	-0.191	-2.66
9JH48H		2.622	0.151	2.07	2.634	0.161	2.24
A7EWXJ		2.444	-0.027	-0.37	2.410	-0.063	-0.88
AEMJPK		2.428	-0.043	-0.59	2.444	-0.029	-0.41
C4YEQJ		2.476	0.005	0.07	2.510	0.037	0.51
C9PTAY	X	7.350	4.879	66.76	7.118	4.645	64.67
DHJZYJ		2.416	-0.055	-0.75	2.448	-0.025	-0.35
EGX6GF		2.370	-0.101	-1.38	2.340	-0.133	-1.85
EPCLFH		2.470	-0.001	-0.02	2.478	0.004	0.06
F8RFGQ		2.560	0.089	1.22	2.616	0.143	1.99
GBH9PC		2.518	0.047	0.64	2.510	0.037	0.51
GW6X4A		2.476	0.005	0.07	2.460	-0.013	-0.18
GXWY37	X	2.000	-0.471	-6.45	2.000	-0.473	-6.59
HJRE7U		2.366	-0.105	-1.44	2.366	-0.107	-1.49
JA2XMN		2.420	-0.051	-0.70	2.446	-0.027	-0.38
JJPK2Z		2.464	-0.007	-0.10	2.486	0.013	0.18
JNHPU4	*	2.654	0.183	2.50	2.575	0.102	1.41
LAV83C		2.464	-0.007	-0.10	2.476	0.003	0.04
LEAR7Q		2.398	-0.073	-1.00	2.383	-0.090	-1.26
LFKURP		2.426	-0.045	-0.62	2.432	-0.041	-0.57
M2A48N		2.400	-0.071	-0.97	2.500	0.027	0.37
MT3T8Q	X	2.816	0.345	4.72	2.890	0.417	5.80
NEF3PZ		2.484	0.013	0.18	2.434	-0.039	-0.55
NPZAQA		2.498	0.027	0.37	2.526	0.053	0.74



Plastics Interlaboratory Testing Program

Report #123

Analysis 706

3rd Qtr 2022

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PCATG3		2.580	0.109	1.49	2.580	0.107	1.49
PD2QRV	*	2.462	-0.009	-0.12	2.366	-0.107	-1.49
PV6HDW		2.480	0.009	0.12	2.476	0.003	0.04
PXR64Y		2.458	-0.013	-0.18	2.472	-0.001	-0.02
Q6GTXM		2.506	0.035	0.48	2.498	0.025	0.35
QDHFE8		2.490	0.019	0.26	2.476	0.003	0.04
QM9YV2		2.440	-0.031	-0.42	2.450	-0.023	-0.32
QNXLXP	X	7.170	4.699	64.29	7.233	4.760	66.28
QYVCN3		2.450	-0.021	-0.29	2.466	-0.007	-0.10
RC3R48		2.440	-0.031	-0.42	2.438	-0.035	-0.49
T8JUBA	X	3.154	0.683	9.35	3.330	0.857	11.93
UNRYHM	X	2.640	0.169	2.31	2.500	0.027	0.37
V986ZU	X	8.842	6.371	87.18	8.480	6.007	83.64
VERP7A		2.432	-0.039	-0.53	2.452	-0.021	-0.30
VPE9HE		2.316	-0.155	-2.12	2.304	-0.169	-2.36
Y7AVJN		2.550	0.079	1.08	2.600	0.127	1.77
YXZBFR		2.404	-0.067	-0.92	2.392	-0.081	-1.13
ZA2GPG		2.480	0.009	0.12	2.480	0.007	0.09
ZDP2QE		2.508	0.037	0.51	2.514	0.041	0.57
ZMA8MH		2.482	0.011	0.15	2.502	0.029	0.40
ZZZU2Q		2.446	-0.025	-0.34	2.458	-0.015	-0.21

Summary Statistics		
	Sample F85	Sample F86
Grand Means	2.4710 Percent	2.4732 Percent
Stnd Dev Btwn Labs	0.0731 Percent	0.0718 Percent

Statistics based on 49 of 56 reporting participants

Sample F85: ABS & Sample F86: ABS



Comments on Assigned Data Flags for Test #706

- UNRYHM (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- T8JUBA (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F85.
- QNXLXP (X) - Extreme data.
- V986ZU (X) - Extreme data.
- MT3T8Q (X) - Data for both samples are high. Possible Systematic Error.
- C9PTAY (X) - Extreme data.
- GXWY37 (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

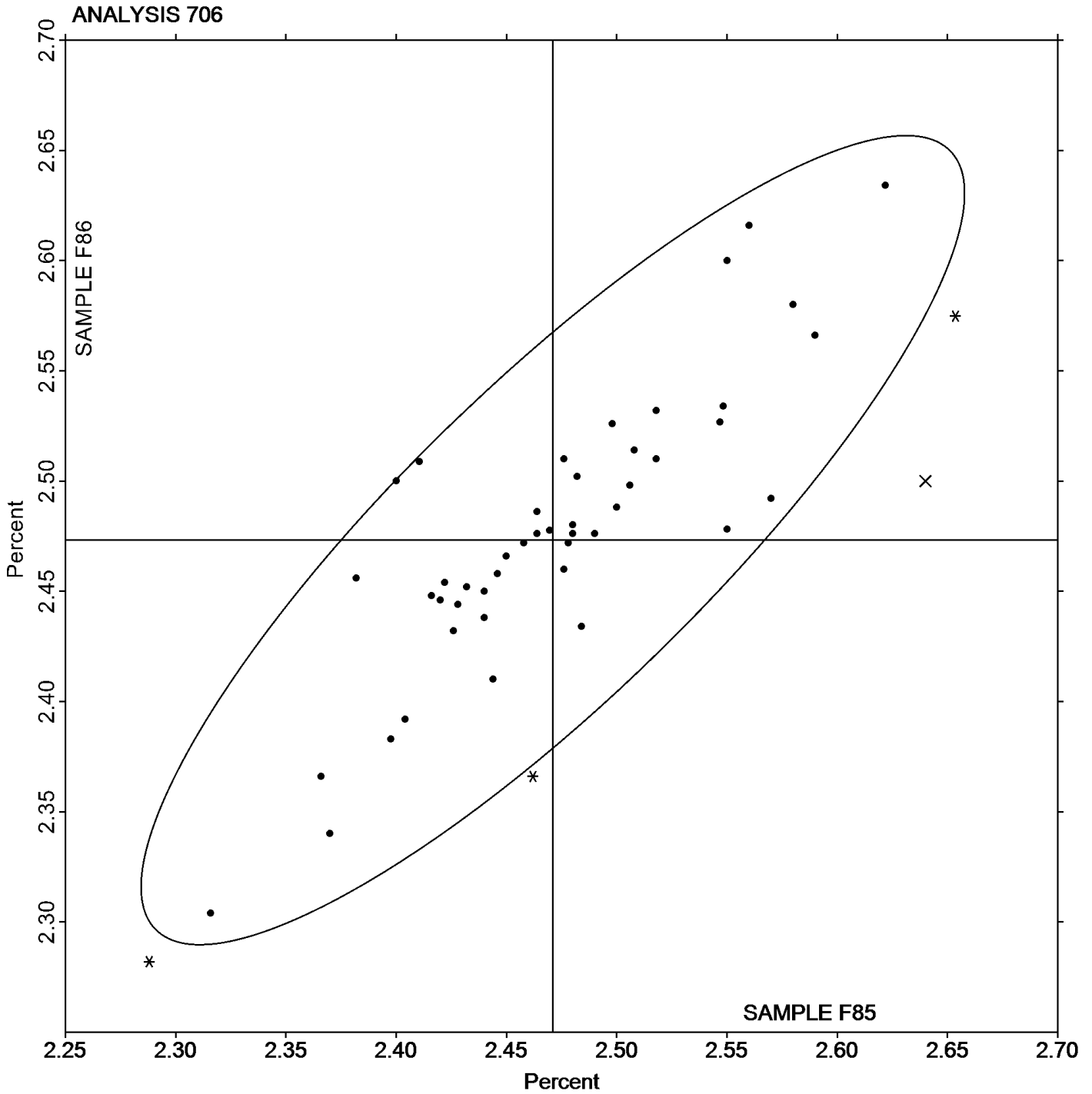
Report #123

Analysis 706

3rd Qtr 2022

Percent Elongation at Yield - Percent

Grand Mean Sample F85: 2.4710 Percent Grand Mean Sample F86: 2.4732 Percent





Plastics Interlaboratory Testing Program

Report #123

Analysis 708

3rd Qtr 2022

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2V23Z8		357.20	9.58	0.61	358.80	13.22	0.78
3637T3	M	No data reported for this sample			324.80	-20.78	-1.23
3MAU8U		322.56	-25.06	-1.59	320.82	-24.76	-1.47
4PM7BN		357.98	10.36	0.66	351.56	5.98	0.35
6APE6D		356.48	8.86	0.56	353.98	8.40	0.50
6MX4Y9		325.76	-21.86	-1.39	325.98	-19.60	-1.16
6WYRQ6		348.99	1.37	0.09	346.07	0.48	0.03
7CXYGK		325.80	-21.82	-1.38	323.40	-22.18	-1.31
8GKXF8		359.48	11.86	0.75	354.64	9.06	0.54
8MP24K		341.96	-5.66	-0.36	342.60	-2.98	-0.18
8Z3V4D	*	368.97	21.35	1.35	349.46	3.88	0.23
97H3W3	*	371.08	23.46	1.49	384.44	38.86	2.30
9JH48H		345.06	-2.56	-0.16	338.94	-6.64	-0.39
A7EWXJ	*	320.20	-27.42	-1.74	302.52	-43.06	-2.55
AEMJPK		354.33	6.71	0.43	354.56	8.98	0.53
C4YEQJ		345.20	-2.42	-0.15	337.88	-7.70	-0.46
C9PTAY	X	56.00	-291.62	-18.48	57.20	-288.38	-17.07
DHJZYJ		350.80	3.18	0.20	355.20	9.62	0.57
EGX6GF		356.40	8.78	0.56	359.60	14.02	0.83
EPCLFH		342.86	-4.76	-0.30	338.52	-7.06	-0.42
F8RFGQ		335.14	-12.48	-0.79	339.90	-5.68	-0.34
GBH9PC		351.80	4.18	0.26	345.80	0.22	0.01
GXWY37		339.53	-8.09	-0.51	339.23	-6.36	-0.38
HJRE7U	X	0.34	-347.28	-22.00	0.34	-345.24	-20.43
JA2XMN		367.08	19.46	1.23	365.64	20.06	1.19
JPK2Z		334.87	-12.75	-0.81	329.41	-16.17	-0.96
JNHPU4		354.94	7.32	0.46	348.66	3.08	0.18
LAV83C		361.50	13.88	0.88	353.98	8.40	0.50
LEAR7Q		359.26	11.64	0.74	363.12	17.54	1.04
LFKURP		347.26	-0.36	-0.02	345.15	-0.43	-0.03
M2A48N		345.49	-2.13	-0.13	330.37	-15.21	-0.90
MT3T8Q		334.60	-13.01	-0.82	336.93	-8.66	-0.51
NEF3PZ		325.00	-22.62	-1.43	330.80	-14.78	-0.87
NPZAQA		330.76	-16.86	-1.07	333.94	-11.64	-0.69
PCATG3		335.62	-12.00	-0.76	337.36	-8.22	-0.49



Plastics Interlaboratory Testing Program

Report #123

Analysis 708

3rd Qtr 2022

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F85			Sample F86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PD2QRV	X	342.24	-5.38	-0.34	376.88	31.30	1.85
PXR64Y		344.80	-2.82	-0.18	339.54	-6.04	-0.36
Q6GTXM		325.78	-21.84	-1.38	328.70	-16.88	-1.00
QDHFE8		345.76	-1.86	-0.12	340.94	-4.64	-0.27
QNXLXP	X	346.67	-0.95	-0.06	375.00	29.41	1.74
QYVCN3		361.16	13.54	0.86	364.44	18.86	1.12
RC3R48	X	481.24	133.62	8.47	486.32	140.74	8.33
T8JUBA		361.26	13.64	0.86	365.80	20.22	1.20
UNRYHM		327.40	-20.22	-1.28	327.80	-17.78	-1.05
V986ZU	X	79.76	-267.86	-16.97	83.38	-262.20	-15.52
VERP7A		353.40	5.78	0.37	346.80	1.22	0.07
VPE9HE		370.64	23.02	1.46	373.84	28.26	1.67
Y7AVJN		314.12	-33.50	-2.12	310.44	-35.14	-2.08
YXZBFR		385.06	37.44	2.37	378.16	32.58	1.93
ZA2GPG		356.80	9.18	0.58	358.20	12.62	0.75
ZDP2QE		344.29	-3.33	-0.21	340.12	-5.46	-0.32
ZMA8MH		367.93	20.31	1.29	364.99	19.41	1.15
ZZZU2Q		358.16	10.54	0.67	357.72	12.14	0.72

Summary Statistics

	Sample F85	Sample F86
Grand Means	347.620 ksi	345.581 ksi
Std Dev Btwn Labs	15.782 ksi	16.898 ksi

Statistics based on 46 of 53 reporting participants

Sample F85: ABS & Sample F86: ABS

Comments on Assigned Data Flags for Test #708

- QNXLXP (X) - Inconsistent in testing between samples.
- PD2QRV (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- V986ZU (X) - Extreme data.
- RC3R48 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- C9PTAY (X) - Extreme data.
- 3637T3 (M) - Participant did not submit data for sample F85.
- HJRE7U (X) - Extreme data.



Plastics Interlaboratory Testing Program

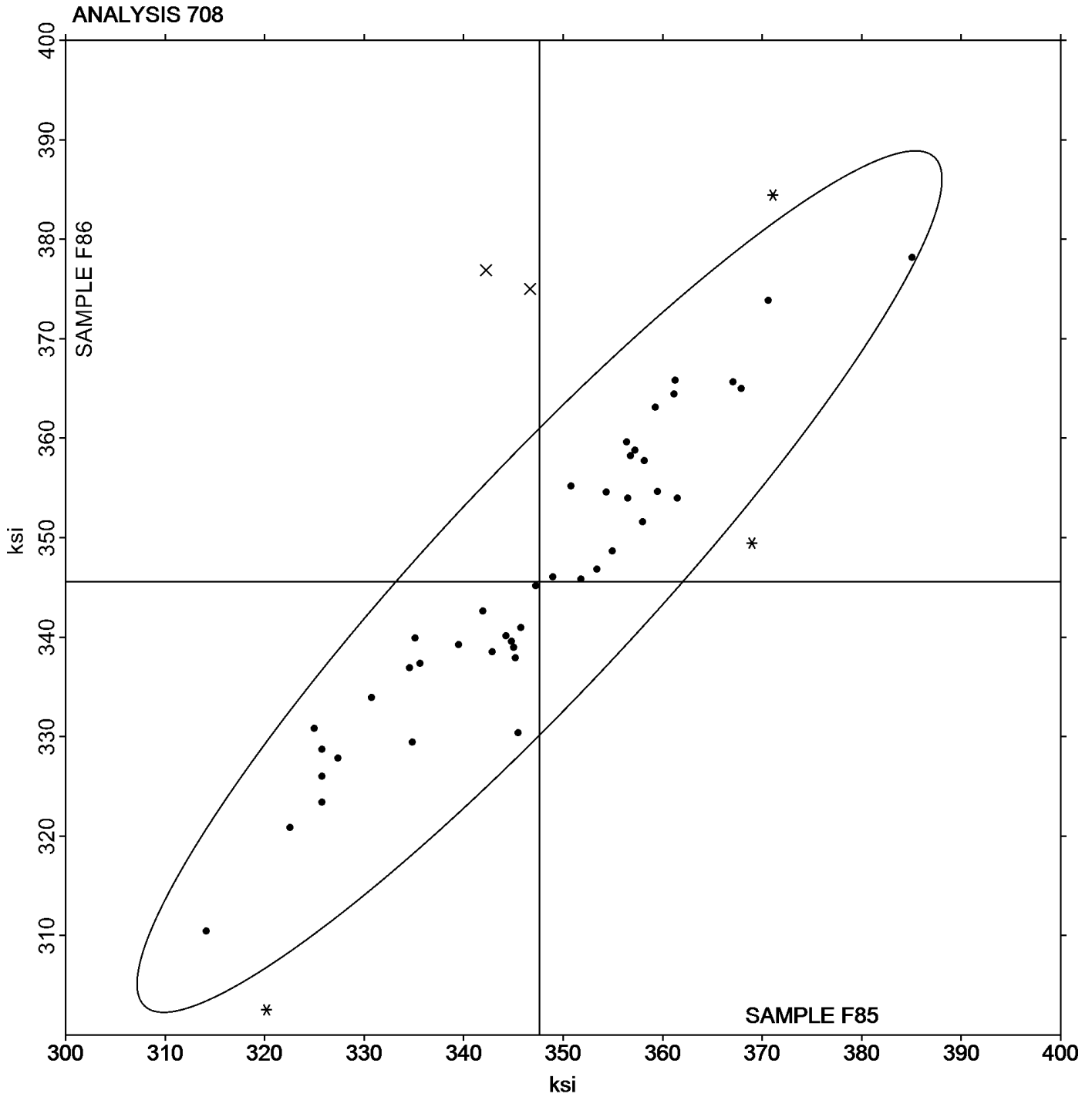
Analysis 708

Modulus of Elasticity - ksi

Report #123

3rd Qtr 2022

Grand Mean Sample F85: 347.62 ksi Grand Mean Sample F86: 345.58 ksi





Plastics Interlaboratory Testing Program

Report #123

Analysis 710

3rd Qtr 2022

Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

WebCode	Data Flag	Sample E85			Sample E86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MAU8U	*	102.03	-2.52	-0.89	104.43	-0.42	-0.13	TO
4PM7BN		104.95	0.41	0.14	103.83	-1.02	-0.30	IN
6ZNBVB		104.30	-0.24	-0.09	105.28	0.43	0.13	AT
7CXYGK		105.00	0.46	0.16	104.55	-0.30	-0.09	ZW
8Z3V4D		101.53	-3.02	-1.07	101.00	-3.85	-1.14	CE
AEMJPK		109.08	4.53	1.60	110.55	5.70	1.69	ZW
C9PTAY		104.13	-0.42	-0.15	104.90	0.05	0.02	XX
CYM7L9		105.00	0.46	0.16	104.93	0.08	0.02	TO
EGX6GF	*	112.53	7.98	2.82	115.28	10.43	3.10	DN
GMZNY7		105.00	0.46	0.16	105.30	0.45	0.13	IN
GW6X4A	M	No data reported for this sample			102.03	-2.82	-0.84	IN
JPK2Z		103.40	-1.14	-0.40	103.30	-1.55	-0.46	TY
LAD8VF		104.50	-0.04	-0.02	103.75	-1.10	-0.33	TO
LAV83C		102.66	-1.88	-0.66	103.18	-1.67	-0.50	RO
LEAR7Q		103.53	-1.02	-0.36	104.10	-0.75	-0.22	TO
LFY3WJ		103.18	-1.37	-0.48	103.49	-1.36	-0.40	TO
MT3T8Q		104.35	-0.19	-0.07	103.98	-0.87	-0.26	CE
PCATG3		106.18	1.63	0.58	106.58	1.73	0.51	AT
PXR64Y		103.20	-1.34	-0.47	102.83	-2.02	-0.60	CE
QM9YV2		101.73	-2.82	-1.00	101.53	-3.32	-0.99	TO
QYVCN3		101.38	-3.17	-1.12	101.13	-3.72	-1.11	TO
RC3R48	*	112.78	8.23	2.91	113.30	8.45	2.51	CE
U6ELLQ		103.10	-1.44	-0.51	103.83	-1.02	-0.30	XX
VPE9HE		102.15	-2.39	-0.85	101.50	-3.35	-1.00	TO
Y7AVJN		103.38	-1.17	-0.41	102.55	-2.30	-0.68	CF
YW8D8K		104.75	0.21	0.07	107.15	2.30	0.68	XA
ZA2GPG		104.90	0.36	0.13	104.70	-0.15	-0.04	CF
ZZZU2Q		104.00	-0.54	-0.19	104.00	-0.85	-0.25	IN

Summary Statistics

	Sample E85	Sample E86
Grand Means	104.543 Degrees C	104.848 Degrees C
Std Dev Btwn Labs	2.831 Degrees C	3.364 Degrees C

Statistics based on 27 of 28 reporting participants

Sample E85: ABS/PC & Sample E86: ABS/PC



Plastics Interlaboratory Testing Program
Analysis 710
Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

Report #123
3rd Qtr 2022

Comments on Assigned Data Flags for Test #710

GW6X4A (M) - Participant did not submit data for sample E85.

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	DN	DYNISCO
IN	Instron	RO	Rosand
TO	Tinius Olsen	TY	Toyoseiki
XA	Special In-House Instrument	XX	Instrument manufacturer not specified by lab
ZW	Zwick		



Plastics Interlaboratory Testing Program

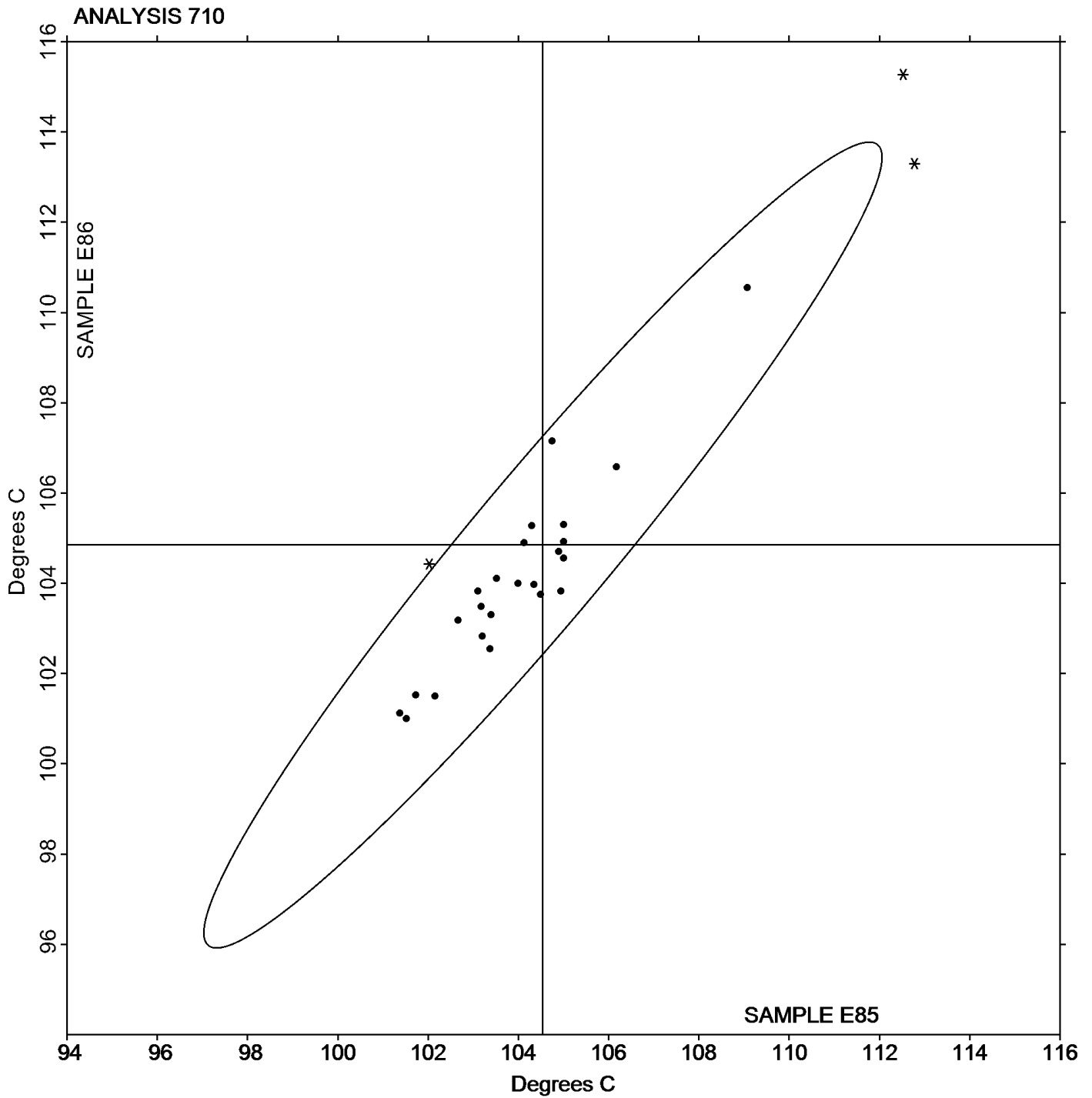
Report #123

Analysis 710

3rd Qtr 2022

Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

Grand Mean Sample E85: 104.54 Degrees C Grand Mean Sample E86: 104.85 Degrees C





Plastics Interlaboratory Testing Program

Report #123

Analysis 711

3rd Qtr 2022

Deflection Temp. Under Flexural Load (0.455 MPa) - Degrees C

WebCode	Data Flag	Sample G85			Sample G86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3PA2FK		110.9	-0.6	-0.15	110.6	-0.9	-0.25	CS
7MCQBV		109.3	-2.2	-0.52	110.7	-0.8	-0.23	CE
8Z3V4D		109.8	-1.7	-0.40	111.3	-0.2	-0.06	CE
AEMJPK		119.0	7.6	1.82	117.2	5.7	1.54	ZW
FQ2EN7		109.5	-2.0	-0.47	108.3	-3.3	-0.89	XX
GW6X4A		108.2	-3.3	-0.79	108.4	-3.1	-0.84	IN
K8BZ6A		109.5	-2.0	-0.47	108.5	-3.0	-0.82	XX
K8TWMC		110.3	-1.2	-0.29	110.8	-0.8	-0.21	TO
LAD8VF		115.3	3.8	0.91	114.8	3.2	0.88	TO
LFY3WJ		114.6	3.1	0.75	114.6	3.1	0.85	TO
PCATG3		118.7	7.3	1.75	117.5	6.0	1.64	AT
QM9YV2		107.5	-4.0	-0.95	108.5	-3.0	-0.82	TO
QYVCN3		105.4	-6.0	-1.45	107.1	-4.5	-1.22	TO
RC3R48		115.7	4.3	1.03	116.7	5.2	1.42	CE
RT9TYT		108.3	-3.2	-0.77	107.9	-3.6	-0.98	CE

Summary Statistics		
	Sample G85	Sample G86
Grand Means	111.45 Degrees C	111.52 Degrees C
Std Dev Btwn Labs	4.16 Degrees C	3.67 Degrees C
Statistics based on 15 of 15 reporting participants		

Sample G85: PP & Sample G86: PP

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CS	CSI	IN	Instron
TO	Tinius Olsen	XX	Instrument manufacturer not specified by lab
ZW	Zwick		



Plastics Interlaboratory Testing Program

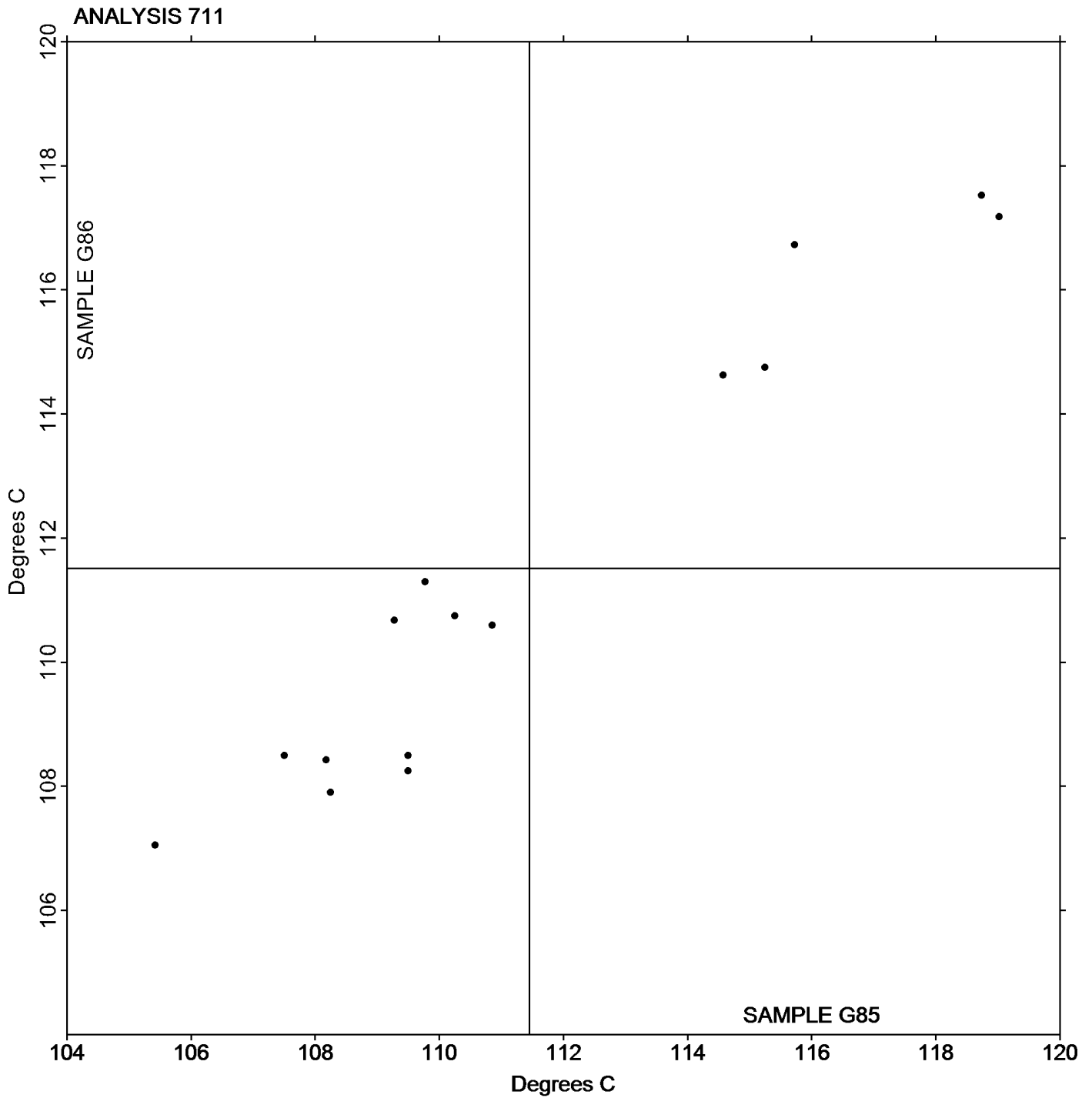
Report #123

Analysis 711

3rd Qtr 2022

Deflection Temp. Under Flexural Load (0.455 MPa) - Degrees C

Grand Mean Sample G85: 111.45 Degrees C Grand Mean Sample G86: 111.52 Degrees C



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 712

3rd Qtr 2022

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

WebCode	Data Flag	Sample N85			Sample N86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
24FMRJ		75.08	-0.31	-0.37	74.98	-0.44	-0.56	TO
2BBDTF		76.27	0.88	1.05	75.97	0.55	0.69	CE
3AC8NB		76.45	1.06	1.26	76.78	1.36	1.71	CE
3AJ8TL		75.10	-0.29	-0.34	74.90	-0.52	-0.65	XX
3ZEXNG		75.73	0.34	0.41	75.93	0.52	0.65	IN
7TK66D		74.25	-1.14	-1.36	74.75	-0.67	-0.84	CE
8GJ86H		74.53	-0.86	-1.03	74.55	-0.87	-1.09	TO
8Z3V4D		74.18	-1.21	-1.45	74.45	-0.97	-1.22	CE
9G2EBZ		74.50	-0.89	-1.06	74.78	-0.64	-0.81	CE
9TRB3Q		75.60	0.21	0.25	76.00	0.58	0.74	CE
AEMJPK		75.68	0.29	0.34	75.50	0.08	0.11	ZW
C8YHH7		76.08	0.69	0.82	75.98	0.56	0.71	CF
C9PTAY		77.00	1.61	1.92	76.95	1.53	1.93	XX
DQPYHT		75.45	0.06	0.07	75.50	0.08	0.11	CE
ENG9NJ		74.63	-0.76	-0.91	74.53	-0.89	-1.12	TO
FQ2EN7		75.73	0.34	0.40	75.75	0.33	0.42	XX
GG9NCX		76.23	0.84	1.00	76.35	0.93	1.18	CE
GW6X4A		75.50	0.11	0.13	75.83	0.41	0.52	IN
HRBABA		75.33	-0.06	-0.08	75.45	0.03	0.04	CE
J36WR6		74.68	-0.71	-0.85	74.63	-0.79	-1.00	TO
JPK2Z		75.80	0.41	0.49	75.75	0.33	0.42	TY
K7MC2W		74.40	-0.99	-1.18	74.25	-1.17	-1.47	TO
K8BZ6A		75.80	0.41	0.49	75.65	0.23	0.30	XX
LAD8VF		73.70	-1.69	-2.01	73.98	-1.44	-1.82	XX
LFKURP	X	74.40	-0.99	-1.18	75.60	0.18	0.23	IN
LFY3WJ		73.97	-1.42	-1.69	73.99	-1.42	-1.79	TO
LXVCGV		74.08	-1.31	-1.56	74.15	-1.27	-1.60	CE
M6CLJ4		76.58	1.19	1.41	76.30	0.88	1.12	CE
P4D3RL		76.03	0.64	0.76	76.03	0.61	0.77	TY
P7J2RF		75.75	0.36	0.43	75.75	0.33	0.42	XX
P7ZNG3		75.15	-0.24	-0.28	75.20	-0.22	-0.27	CE
PCATG3		76.58	1.19	1.41	76.48	1.06	1.34	AT
PXBW6W		75.10	-0.29	-0.34	75.00	-0.42	-0.52	CE
PXR64Y		75.45	0.06	0.07	75.63	0.21	0.26	CE
QTP8UD		74.80	-0.59	-0.70	74.93	-0.49	-0.62	CE



Plastics Interlaboratory Testing Program

Report #123

Analysis 712

3rd Qtr 2022

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

WebCode	Data Flag	Sample N85			Sample N86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
TW384U		75.33	-0.06	-0.08	75.40	-0.02	-0.02	TY
UCW34R		75.03	-0.36	-0.43	75.10	-0.32	-0.40	IN
YDQFJE		76.30	0.91	1.09	76.40	0.98	1.24	CE
ZA2GPG		77.07	1.68	2.00	76.73	1.32	1.66	CF
ZDP2QE		75.75	0.36	0.43	75.70	0.28	0.36	CE
ZZZU2Q		74.95	-0.44	-0.52	74.70	-0.72	-0.90	IN

Summary Statistics

	Sample N85	Sample N86
Grand Means	75.388 Degrees C	75.416 Degrees C
Std Dev Btwn Labs	0.839 Degrees C	0.793 Degrees C

Statistics based on 40 of 41 reporting participants

Sample N85: HIPS & Sample N86: HIPS

Comments on Assigned Data Flags for Test #712

LFKURP (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample N86.

Key to Instrument Codes Reported by Participants

AT Atlas	CE Ceast
CF Coesfeld	IN Instron
TO Tinius Olsen	TY Toyoseiki
XX Instrument manufacturer not specified by lab	ZW Zwick



Plastics Interlaboratory Testing Program

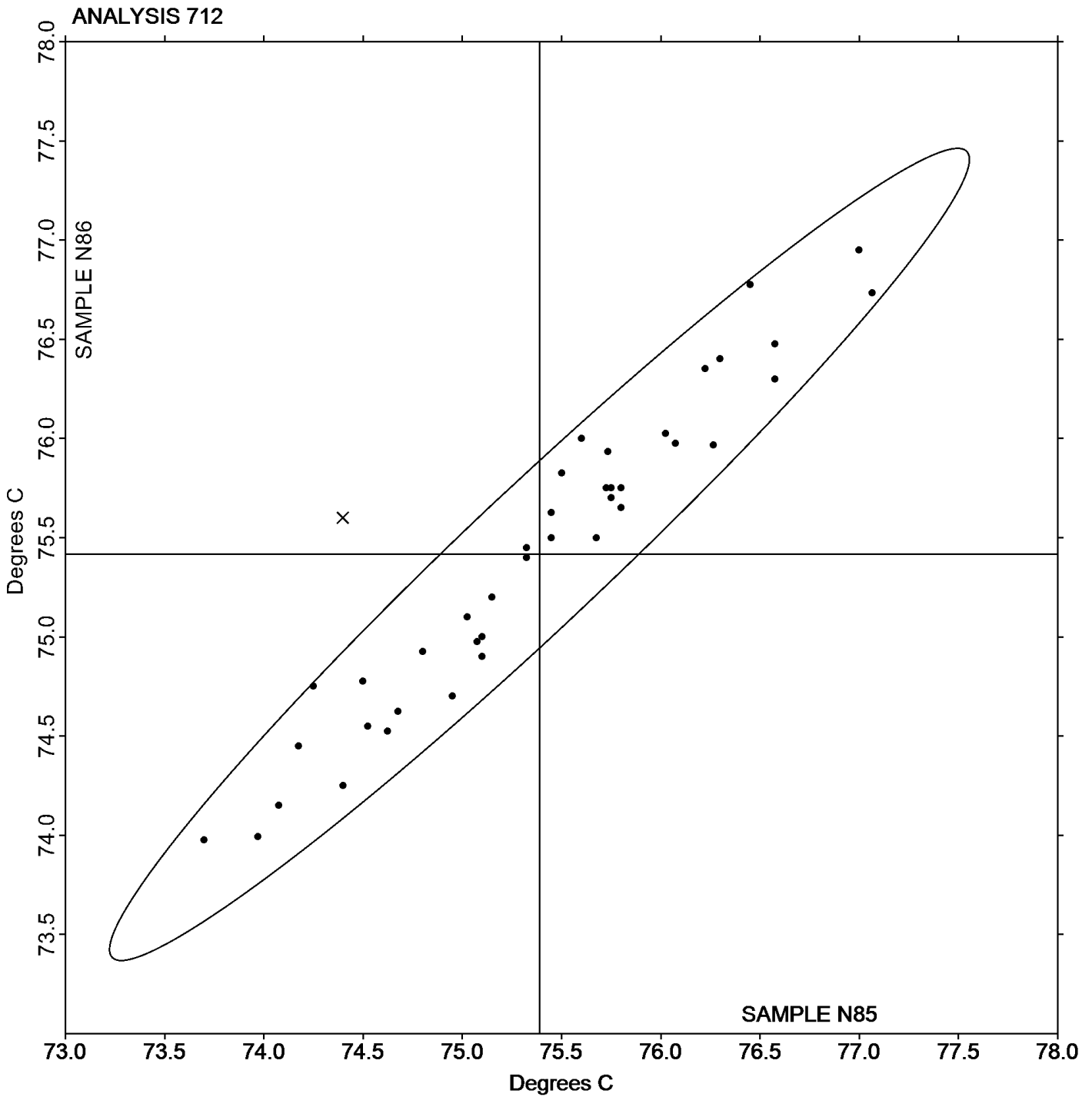
Report #123

Analysis 712

3rd Qtr 2022

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

Grand Mean Sample N85: 75.388 Degrees C Grand Mean Sample N86: 75.416 Degrees C





Plastics Interlaboratory Testing Program

Report #123

Analysis 715

3rd Qtr 2022

Vicat Softening Temperature (Rate A)

WebCode	Data Flag	Sample H85			Sample H86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3AC8NB		103.43	1.66	0.62	103.57	1.77	0.66	CF
3AJ8TL		102.65	0.88	0.33	102.72	0.92	0.34	AT
7CXYGK		95.07	-6.70	-2.49	94.98	-6.81	-2.53	WZ
8Z3V4D		101.98	0.20	0.08	101.95	0.15	0.06	CE
97H3W3		102.45	0.68	0.25	102.63	0.84	0.31	XX
AEMJPK		103.98	2.21	0.82	104.20	2.40	0.89	CF
C9PTAY	X	100.92	-0.85	-0.32	102.03	0.24	0.09	XX
CXXVWZ		102.55	0.78	0.29	102.50	0.70	0.26	WZ
DHJZYJ	*	93.12	-8.65	-3.22	93.27	-8.53	-3.17	IN
EGX6GF		103.07	1.30	0.48	103.13	1.34	0.50	DN
GW6X4A		102.40	0.63	0.23	102.42	0.62	0.23	TO
HRBABA		102.77	1.00	0.37	102.80	1.00	0.37	CE
JPK2Z		103.23	1.46	0.54	103.48	1.69	0.63	CF
LAV83C		101.10	-0.67	-0.25	101.15	-0.65	-0.24	RO
LFY3WJ		102.73	0.96	0.36	102.60	0.80	0.30	TO
NUW6E4		100.33	-1.44	-0.53	100.35	-1.45	-0.54	CE
PCATG3		102.67	0.90	0.33	102.65	0.85	0.32	AT
PXR64Y		103.23	1.46	0.54	103.22	1.42	0.53	CE
QE73HV	X	93.23	-8.54	-3.18	92.38	-9.41	-3.50	IN
QRFF2G		102.42	0.65	0.24	102.43	0.64	0.24	CE
U6ELLQ		102.20	0.43	0.16	102.22	0.42	0.16	XX
VPE9HE		100.18	-1.59	-0.59	100.15	-1.65	-0.61	TO
ZA2GPG		104.03	2.26	0.84	104.00	2.20	0.82	CF
ZDP2QE		103.35	1.58	0.59	103.08	1.29	0.48	CE

Summary Statistics		
	Sample H85	Sample H86
Grand Means	101.770 Degrees C	101.795 Degrees C
Std Dev Btwn Labs	2.688 Degrees C	2.689 Degrees C
Statistics based on 22 of 24 reporting participants		

Sample H85: ABS & Sample H86: ABS

Comments on Assigned Data Flags for Test #715

- QE73HV (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample H86.
- C9PTAY (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

Analysis 715

Vicat Softening Temperature (Rate A)

Report #123

3rd Qtr 2022

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	DN	DYNISCO
IN	Instron	RO	Rosand
TO	Tinius Olsen	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

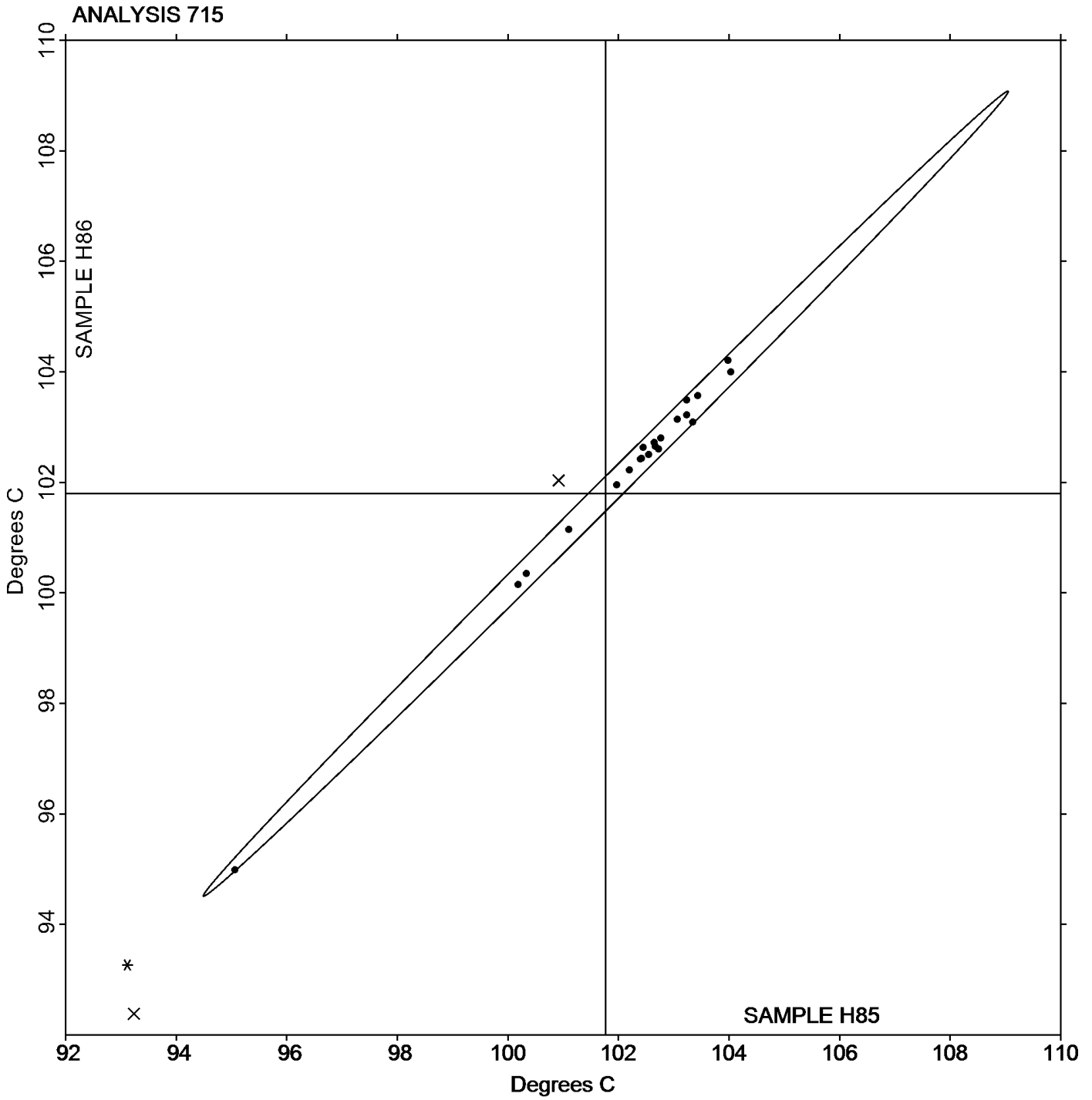
Analysis 715

Vicat Softening Temperature (Rate A)

Report #123

3rd Qtr 2022

Grand Mean Sample H85: 101.77 Degrees C Grand Mean Sample H86: 101.80 Degrees C





Plastics Interlaboratory Testing Program

Report #123

Analysis 716

3rd Qtr 2022

Vicat Softening Temperature (Rate B)

WebCode	Data Flag	Sample R85			Sample R86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3AC8NB		104.22	0.98	0.33	104.47	1.20	0.40	CF
3AJ8TL		104.62	1.38	0.46	104.58	1.32	0.44	AT
7CXYGK		100.15	-3.09	-1.02	100.05	-3.22	-1.09	CE
97H3W3		104.68	1.45	0.48	104.45	1.18	0.40	XX
AEMJPK		105.22	1.98	0.66	105.12	1.85	0.62	CF
C9PTAY	X	102.87	-0.37	-0.12	101.93	-1.33	-0.45	XX
CXXVWZ		104.65	1.41	0.47	104.80	1.53	0.52	WZ
DHJZYJ	*	95.20	-8.04	-2.67	95.30	-7.97	-2.69	IN
EGX6GF		105.30	2.06	0.69	105.07	1.80	0.61	DN
GW6X4A		103.77	0.53	0.18	103.97	0.70	0.24	TO
HRBABA		104.67	1.43	0.47	104.72	1.45	0.49	CE
JPK2Z		104.63	1.40	0.46	104.75	1.48	0.50	CF
LAV83C		102.62	-0.62	-0.20	102.77	-0.50	-0.17	RO
LFY3WJ		104.30	1.06	0.35	104.10	0.83	0.28	TO
NUW6E4		100.55	-2.69	-0.89	100.58	-2.68	-0.91	CE
PCATG3		104.73	1.50	0.50	104.68	1.42	0.48	AT
PXR64Y		105.07	1.83	0.61	105.13	1.87	0.63	CE
QE73HV	*	95.03	-8.20	-2.72	95.33	-7.93	-2.68	IN
RT9TYT		103.50	0.26	0.09	103.40	0.13	0.04	CE
U6ELLQ		103.37	0.13	0.04	103.60	0.33	0.11	XX
VPE9HE		103.00	-0.24	-0.08	103.00	-0.27	-0.09	TO
ZA2GPG		106.50	3.26	1.08	106.53	3.27	1.10	CF
ZDP2QE		105.42	2.18	0.72	105.48	2.22	0.75	CE

Summary Statistics		
	Sample R85	Sample R86
Grand Means	103.236 Degrees C	103.268 Degrees C
Std Dev Btwn Labs	3.013 Degrees C	2.964 Degrees C
Statistics based on 22 of 23 reporting participants		

Sample R85: ABS & Sample R86: ABS

Comments on Assigned Data Flags for Test #716

C9PTAY (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample R85.



Plastics Interlaboratory Testing Program

Analysis 716

Vicat Softening Temperature (Rate B)

Report #123

3rd Qtr 2022

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	DN	DYNISCO
IN	Instron	RO	Rosand
TO	Tinius Olsen	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

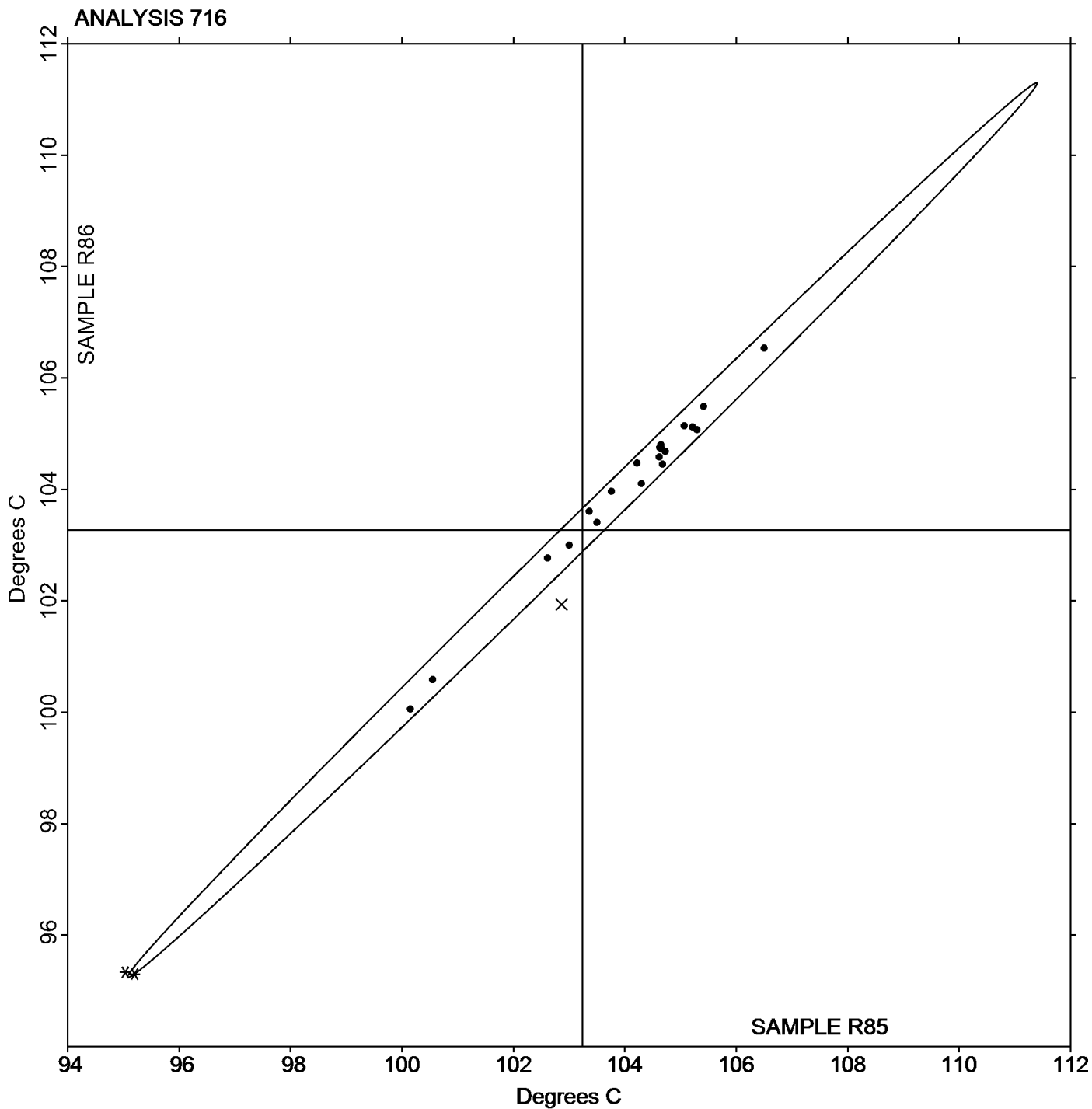
Analysis 716

Vicat Softening Temperature (Rate B)

Report #123

3rd Qtr 2022

Grand Mean Sample R85: 103.24 Degrees C Grand Mean Sample R86: 103.27 Degrees C





Plastics Interlaboratory Testing Program

Report #123

Analysis 718

3rd Qtr 2022

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T85			Sample T86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
299QFV		1.13797	0.00027	0.14	1.13953	0.00181	0.86
2BBDTF	X	1.12733	-0.01036	-5.21	1.12867	-0.00905	-4.30
2V23Z8	*	1.13493	-0.00276	-1.39	1.13303	-0.00469	-2.22
39A3HH		1.13600	-0.00169	-0.85	1.13667	-0.00105	-0.50
3AJ8TL		1.13913	0.00144	0.72	1.13913	0.00141	0.67
3BT3TR		1.13750	-0.00019	-0.10	1.13877	0.00105	0.50
3E9MHT		1.13667	-0.00103	-0.52	1.13667	-0.00105	-0.50
3MAU8U		1.14050	0.00281	1.41	1.14043	0.00271	1.29
3MRTGK		1.13600	-0.00169	-0.85	1.13600	-0.00172	-0.82
3TQ2FF		1.13667	-0.00103	-0.52	1.13800	0.00028	0.13
3U9EHC		1.13973	0.00204	1.03	1.13923	0.00151	0.72
3ZEXNG	*	1.14267	0.00497	2.50	1.14300	0.00528	2.51
4Z29UZ		1.13603	-0.00166	-0.83	1.13603	-0.00169	-0.80
4PM7BN	X	1.13447	-0.00323	-1.62	1.13127	-0.00645	-3.06
6AMQLD		1.13780	0.00011	0.05	1.13790	0.00018	0.09
6ZNQBV	*	1.13433	-0.00336	-1.69	1.13267	-0.00505	-2.40
7CXYGK	X	1.12573	-0.01196	-6.01	1.12047	-0.01725	-8.19
7LKRYH	X	1.13667	-0.00103	-0.52	1.14000	0.00228	1.08
7TK66D		1.14030	0.00261	1.31	1.13897	0.00125	0.59
82T9CN		1.13913	0.00144	0.72	1.14007	0.00235	1.11
8GKXF8		1.13920	0.00151	0.76	1.13920	0.00148	0.70
8Z3V4D		1.13610	-0.00159	-0.80	1.13623	-0.00149	-0.71
97H3W3		1.13530	-0.00239	-1.20	1.13420	-0.00352	-1.67
9RH8QM		1.14000	0.00231	1.16	1.14000	0.00228	1.08
9TRB3Q		1.13767	-0.00003	-0.01	1.13567	-0.00205	-0.97
A7EWXJ	X	1.12967	-0.00803	-4.03	1.13000	-0.00772	-3.66
AEMJPK		1.13820	0.00051	0.25	1.13773	0.00001	0.01
BG9HTG		1.13533	-0.00236	-1.19	1.13420	-0.00352	-1.67
C3LPHE		1.13547	-0.00223	-1.12	1.13550	-0.00222	-1.05
C4H368		1.13882	0.00113	0.57	1.13909	0.00137	0.65
C8YHH7		1.13760	-0.00009	-0.05	1.13890	0.00118	0.56
C9PTAY	X	1.14260	0.00491	2.47	1.14463	0.00691	3.28
CVZW7F		1.13767	-0.00003	-0.01	1.13633	-0.00139	-0.66
DECVWV		1.13667	-0.00103	-0.52	1.13600	-0.00172	-0.82
EAHE2G		1.13667	-0.00103	-0.52	1.13700	-0.00072	-0.34



Plastics Interlaboratory Testing Program

Report #123

Analysis 718

3rd Qtr 2022

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T85			Sample T86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
EC3D6D		1.13700	-0.00069	-0.35	1.13747	-0.00025	-0.12
F8RFGQ		1.13963	0.00194	0.98	1.13947	0.00175	0.83
FBMBX6		1.13700	-0.00069	-0.35	1.13700	-0.00072	-0.34
FQ2EN7		1.13800	0.00031	0.15	1.13867	0.00095	0.45
GA874D		1.14043	0.00274	1.38	1.14023	0.00251	1.19
GDPLD6		1.13923	0.00154	0.77	1.13930	0.00158	0.75
GG9NCX		1.13647	-0.00123	-0.62	1.13733	-0.00039	-0.18
GW6X4A		1.13617	-0.00153	-0.77	1.13657	-0.00115	-0.55
HRBABA		1.13807	0.00037	0.19	1.13810	0.00038	0.18
JA2XMN		1.13660	-0.00109	-0.55	1.13627	-0.00145	-0.69
JPK2Z		1.13600	-0.00169	-0.85	1.13600	-0.00172	-0.82
K7FA6W		1.14000	0.00231	1.16	1.14010	0.00238	1.13
K7MC2W		1.13533	-0.00236	-1.19	1.13567	-0.00205	-0.97
K8BZ6A	X	1.27467	0.13697	68.86	1.34000	0.20228	96.00
KHPQFU		1.13810	0.00041	0.20	1.14013	0.00241	1.15
LEAR7Q		1.13700	-0.00069	-0.35	1.13700	-0.00072	-0.34
LFKURP	*	1.13597	-0.00173	-0.87	1.13850	0.00078	0.37
LFY3WJ		1.13910	0.00141	0.71	1.13927	0.00155	0.73
LXVCGV	X	1.13567	-0.00203	-1.02	1.13267	-0.00505	-2.40
M227F7		1.13960	0.00191	0.96	1.13857	0.00085	0.40
M6CLJ4		1.13926	0.00157	0.79	1.13947	0.00175	0.83
MDBYT6		1.13970	0.00201	1.01	1.14040	0.00268	1.27
MQDJ2V		1.13867	0.00097	0.49	1.13833	0.00061	0.29
MT3T8Q		1.13880	0.00111	0.56	1.13913	0.00141	0.67
MYQQL7		1.13790	0.00021	0.10	1.13843	0.00071	0.34
NN8CJ4		1.13550	-0.00219	-1.10	1.13483	-0.00289	-1.37
P7J2RF		1.13927	0.00157	0.79	1.13903	0.00131	0.62
PCATG3		1.13920	0.00151	0.76	1.13927	0.00155	0.73
PV6HDW		1.13527	-0.00243	-1.22	1.13497	-0.00275	-1.31
PVX3YP		1.13620	-0.00149	-0.75	1.13633	-0.00139	-0.66
PXBW6W		1.14013	0.00244	1.23	1.14003	0.00231	1.10
PXR64Y		1.13907	0.00137	0.69	1.13920	0.00148	0.70
QDHFE8	X	1.13000	-0.00769	-3.87	1.13267	-0.00505	-2.40
QM9YV2		1.13837	0.00067	0.34	1.13713	-0.00059	-0.28
QYVCN3		1.13853	0.00084	0.42	1.13750	-0.00022	-0.10



Plastics Interlaboratory Testing Program

Report #123

Analysis 718

3rd Qtr 2022

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T85			Sample T86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RC3R48		1.14033	0.00264	1.33	1.14003	0.00231	1.10
T8JUBA	X	1.18927	0.05157	25.93	1.13967	0.00195	0.92
UBZJAD		1.13413	-0.00356	-1.79	1.13373	-0.00399	-1.89
UCW34R		1.13600	-0.00169	-0.85	1.13800	0.00028	0.13
UDZ7PH		1.13690	-0.00079	-0.40	1.13667	-0.00105	-0.50
UNK7BY		1.13767	-0.00003	-0.01	1.13810	0.00038	0.18
VK6WWY		1.14033	0.00264	1.33	1.14000	0.00228	1.08
WF46BF		1.13667	-0.00103	-0.52	1.13667	-0.00105	-0.50
WX4C68		1.13997	0.00227	1.14	1.13997	0.00225	1.07
YDQFJE	X	1.13000	-0.00769	-3.87	1.13000	-0.00772	-3.66
YUZZKR		1.13747	-0.00023	-0.11	1.13787	0.00015	0.07
ZA2GPG		1.13400	-0.00369	-1.86	1.13500	-0.00272	-1.29
ZDP2QE		1.14100	0.00331	1.66	1.13967	0.00195	0.92
ZZZU2Q	*	1.13150	-0.00619	-3.11	1.13200	-0.00572	-2.71

Summary Statistics

	Sample T85	Sample T86
Grand Means	1.137693 sp gr 23/23 C	1.137720 sp gr 23/23 C
Std Dev Btwn Labs	0.001989 sp gr 23/23 C	0.002107 sp gr 23/23 C

Statistics based on 73 of 84 reporting participants

Sample T85: ABS/PC & Sample T86: ABS/PC

Comments on Assigned Data Flags for Test #718

- K8BZ6A (X) - Extreme data.
- 7CXYGK (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- QDHF8 (X) - Data for sample T85 are low. Inconsistent within the determinations of both samples.
- T8JUBA (X) - Data for sample T85 are high. Inconsistent within the determinations of sample T85.
- A7EWXJ (X) - Data for both samples are low. Possible Systematic Error.
- 4PM7BN (X) - Data for sample T86 are low.
- C9PTAY (X) - Data for sample T86 are high. Inconsistent within the determinations of sample T86.
- YDQFJE (X) - Data for both samples are low. Possible Systematic Error.
- 7LKRYH (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample T85.
- LXVCGV (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample T86.
- 2BBDTF (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

Report #123

Analysis 718

3rd Qtr 2022

Specific Gravity - sp gr 23/23 C

Results by Methodology (as reported by laboratory)

Test Methodology	Sample T85 <i>ABS/PC</i>			Sample T86 <i>ABS/PC</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D792 Method A (water)	1.137685	0.001988	0.000	1.137669	0.002113	0.000	54/61
ASTM D792 Method B (not water)	1.136683	0.001956	-0.001	1.136150	0.002758	-0.002	2/3
ASTM D1505	1.136100	0.000000	-0.002	1.136233	0.000000	-0.001	1/1
ISO 1183	1.138031	0.002144	0.000	1.138260	0.002127	0.001	15/18



Plastics Interlaboratory Testing Program

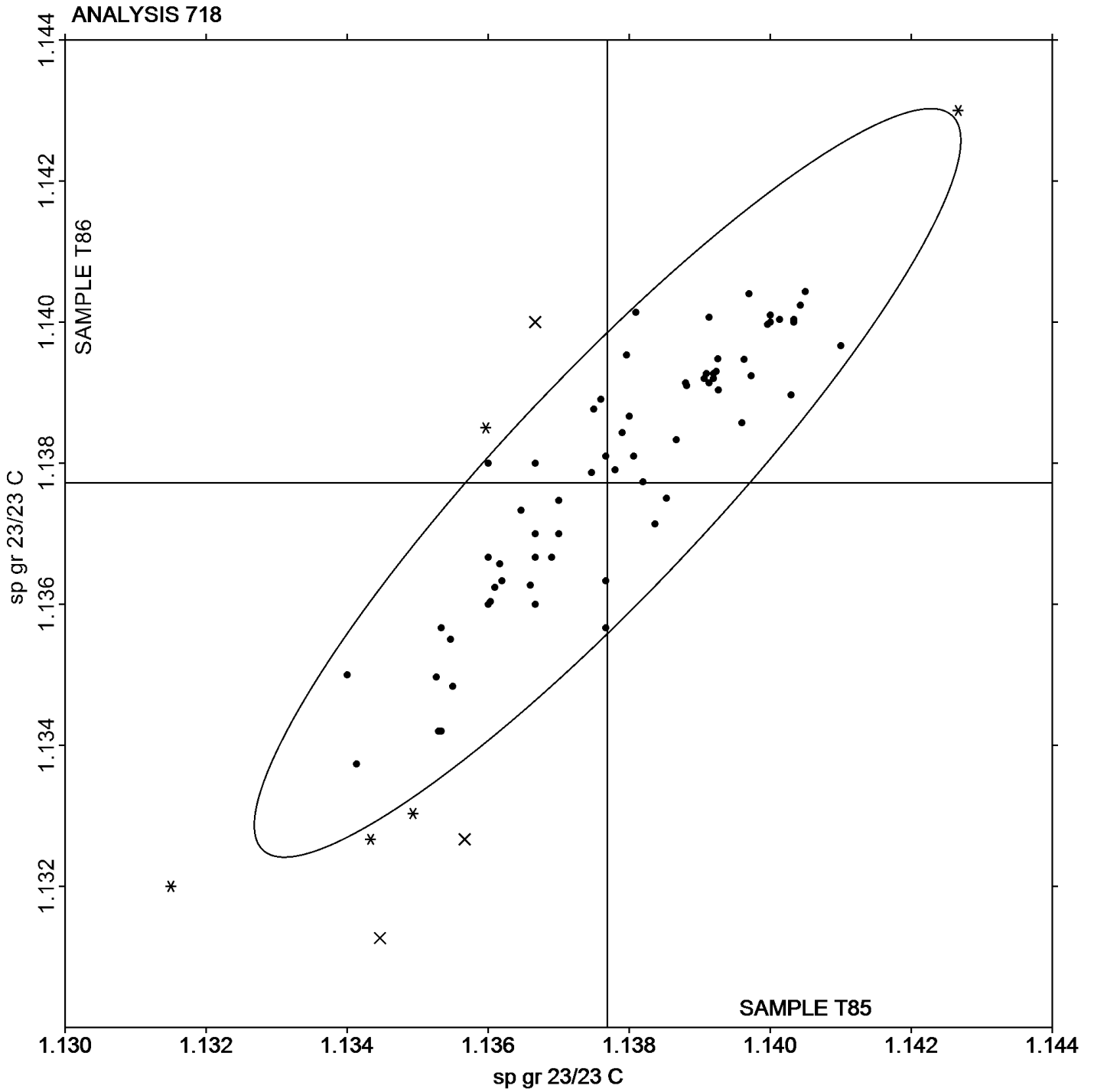
Analysis 718

Specific Gravity - sp gr 23/23 C

Report #123

3rd Qtr 2022

Grand Mean Sample T85: 1.1377 sp gr 23/23 C Grand Mean Sample T86: 1.1377 sp gr 23/23 C





Plastics Interlaboratory Testing Program

Report #123

Analysis 720

3rd Qtr 2022

Flexural Modulus- ksi

WebCode	Data Flag	Sample J85			Sample J86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
299QFV		285.3	16.8	1.36	285.3	16.5	1.25
3AJ8TL		267.4	-1.1	-0.09	268.9	0.1	0.00
3MAU8U	*	267.1	-1.4	-0.11	256.8	-12.0	-0.91
42KUMQ		266.0	-2.4	-0.20	265.0	-3.8	-0.29
4PM7BN		261.0	-7.4	-0.60	264.0	-4.8	-0.37
6BHCDJ	X	210.6	-57.8	-4.68	204.6	-64.2	-4.86
6ZNQBV		276.6	8.1	0.66	277.1	8.3	0.63
74E4C6		260.9	-7.6	-0.61	267.9	-0.9	-0.07
7CXYGK	*	231.2	-37.2	-3.01	231.0	-37.8	-2.86
7XFZLR		256.4	-12.0	-0.97	259.0	-9.8	-0.74
8GKXF8		272.2	3.8	0.30	272.1	3.3	0.25
8Z3V4D		269.3	0.9	0.07	270.5	1.7	0.13
9JH48H		276.2	7.8	0.63	277.8	9.0	0.68
A7EWXJ		258.1	-10.3	-0.83	251.1	-17.7	-1.34
AEMJPK		285.1	16.7	1.35	285.1	16.3	1.24
C9PTAY		283.0	14.6	1.18	290.8	22.0	1.67
DHJZYJ		243.4	-25.0	-2.02	240.4	-28.4	-2.15
DQPYHT		262.6	-5.9	-0.47	257.7	-11.1	-0.84
EGX6GF	X	214.8	-53.6	-4.34	218.6	-50.2	-3.80
EPCLFH		286.9	18.4	1.49	289.5	20.7	1.57
FQ2EN7		272.3	3.8	0.31	272.2	3.4	0.26
GB78A6	*	264.4	-4.0	-0.33	255.2	-13.6	-1.03
GW6X4A		273.3	4.9	0.39	274.9	6.1	0.46
GXWY37		258.8	-9.6	-0.77	257.8	-11.0	-0.83
J32JZ3		268.2	-0.2	-0.02	270.8	2.0	0.15
JPK2Z		250.0	-18.5	-1.49	250.7	-18.1	-1.37
K8BZ6A		254.3	-14.1	-1.14	260.0	-8.8	-0.67
LAD8VF		268.6	0.2	0.01	272.4	3.6	0.27
LAV83C		274.9	6.4	0.52	274.5	5.7	0.43
LEAR7Q		289.0	20.6	1.66	285.1	16.3	1.24
LFKURP		267.9	-0.5	-0.04	275.5	6.7	0.51
LFY3WJ		278.2	9.8	0.79	278.8	10.0	0.76
NPZAQA		271.2	2.8	0.23	273.9	5.1	0.38
PCATG3		263.6	-4.8	-0.39	263.6	-5.2	-0.39
PV6HDW		282.7	14.2	1.15	281.5	12.7	0.96



Plastics Interlaboratory Testing Program

Report #123

Analysis 720

3rd Qtr 2022

Flexural Modulus- ksi

WebCode	Data Flag	Sample J85			Sample J86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PXR64Y		250.9	-17.6	-1.42	251.7	-17.1	-1.30
Q6GTXM		252.1	-16.4	-1.32	252.1	-16.7	-1.27
QDHFE8		282.9	14.5	1.17	284.1	15.3	1.16
QM9YV2		267.5	-1.0	-0.08	270.7	1.9	0.14
QNJWYH		268.4	0.0	0.00	269.8	1.0	0.08
QQ4YN4		252.4	-16.0	-1.30	246.6	-22.2	-1.68
QYVCN3		281.3	12.9	1.04	282.8	14.0	1.06
RC3R48		285.0	16.5	1.34	286.0	17.2	1.31
T8JUBA		278.1	9.7	0.78	271.0	2.2	0.16
V344ZZ		265.9	-2.5	-0.20	271.9	3.1	0.23
VLRMQC		260.0	-8.4	-0.68	263.0	-5.8	-0.44
Y7AVJN		276.2	7.8	0.63	277.1	8.3	0.63
YUZZKR		282.0	13.6	1.10	282.4	13.6	1.03
YXZBFR		289.8	21.4	1.73	291.5	22.7	1.72
Z4VUQL		270.5	2.1	0.17	269.5	0.7	0.05
ZA2GPG		262.8	-5.6	-0.46	262.8	-6.0	-0.45
ZDP2QE		252.7	-15.7	-1.27	253.8	-15.0	-1.14
ZMA8MH		266.0	-2.5	-0.20	266.6	-2.2	-0.17
ZZZU2Q		267.9	-0.5	-0.04	267.4	-1.4	-0.10

Summary Statistics		
	Sample J85	Sample J86
Grand Means	268.43 ksi	268.80 ksi
Stnd Dev Btwn Labs	12.37 ksi	13.19 ksi
Statistics based on 52 of 54 reporting participants		

Sample J85: HIPS & Sample J86: HIPS

Comments on Assigned Data Flags for Test #720

- 6BHCDJ (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample J85.
- EGX6GF (X) - Data for both samples are low. Possible Systematic Error.

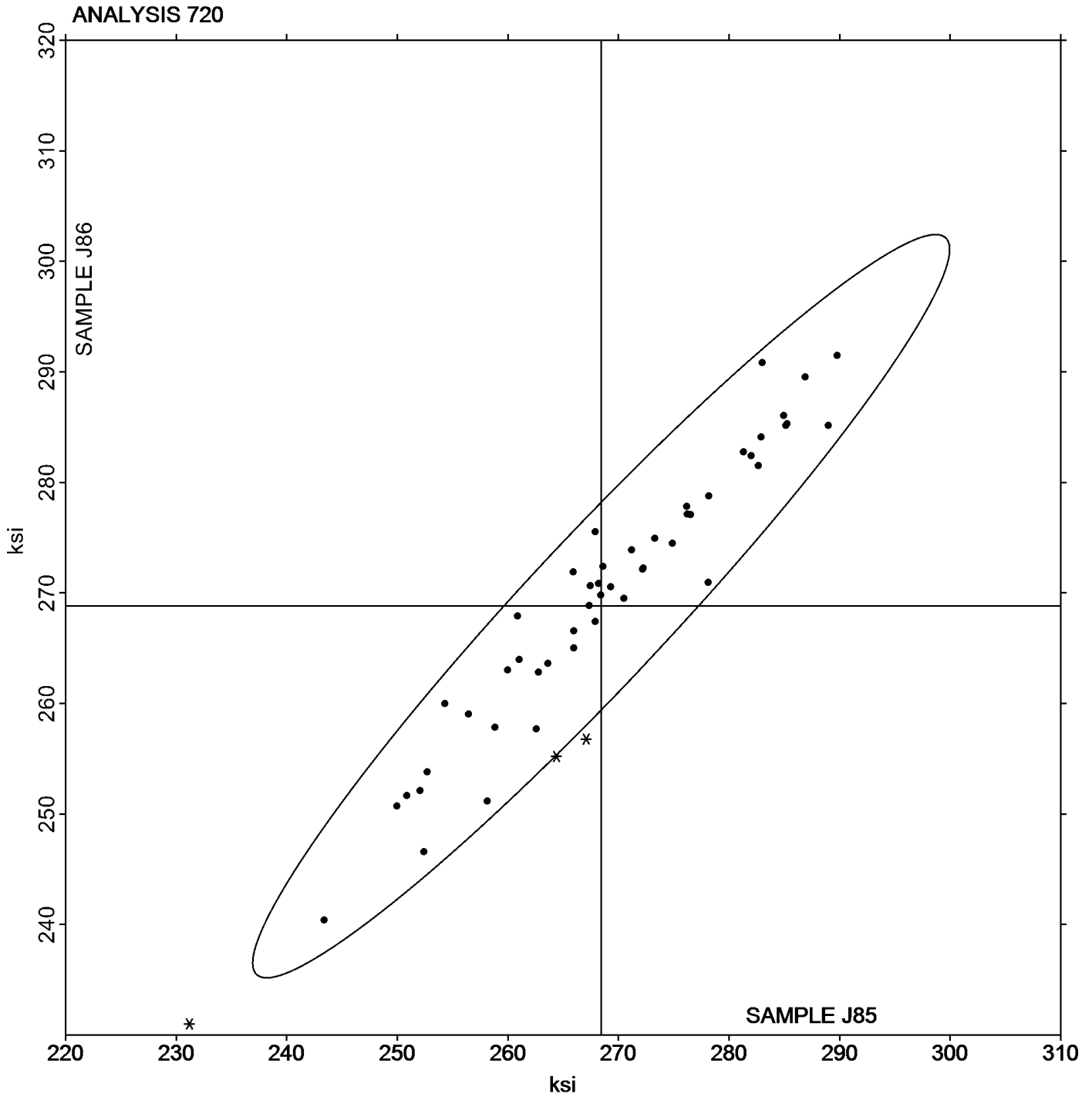


Plastics Interlaboratory Testing Program

Analysis 720
Flexural Modulus- ksi

Report #123
3rd Qtr 2022

Grand Mean Sample J85: 268.43 ksi Grand Mean Sample J86: 268.80 ksi





Plastics Interlaboratory Testing Program

Report #123

Analysis 721

3rd Qtr 2022

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J85			Sample J86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
299QFV		5,727	271	1.02	5,657	194	0.64
2V23Z8		5,484	28	0.11	5,488	25	0.08
3AJ8TL		5,351	-104	-0.39	5,422	-41	-0.14
3MAU8U	*	5,089	-366	-1.37	4,920	-542	-1.80
42KUMQ		5,360	-95	-0.36	5,342	-121	-0.40
4PM7BN		5,434	-21	-0.08	5,425	-38	-0.13
6BHCDJ		5,222	-234	-0.88	5,286	-177	-0.59
6ZNBV		5,387	-68	-0.26	5,450	-13	-0.04
74E4C6		5,539	83	0.31	5,651	188	0.63
7CXYGK		5,631	175	0.66	5,708	245	0.81
7XFZLR		5,297	-159	-0.60	5,332	-131	-0.44
9JH48H		5,797	341	1.28	5,893	430	1.43
A7EWXJ		5,176	-280	-1.05	5,043	-420	-1.39
AEMJPK		5,596	141	0.53	5,578	115	0.38
C9PTAY		5,923	468	1.75	6,041	578	1.92
DHJZYJ		5,612	156	0.59	5,562	99	0.33
DQPYHT		5,511	55	0.21	5,537	74	0.25
EGX6GF	*	4,778	-678	-2.54	4,760	-703	-2.33
GB78A6		4,986	-470	-1.76	4,938	-525	-1.74
GW6X4A		5,455	-1	0.00	5,465	2	0.01
GXWY37		5,384	-72	-0.27	5,461	-2	-0.01
J32JZ3		5,490	35	0.13	5,545	82	0.27
JPK2Z		5,285	-170	-0.64	5,337	-125	-0.42
JPTB6K		5,386	-70	-0.26	5,477	15	0.05
LAD8VF		5,862	406	1.52	5,930	467	1.55
LAV83C		5,802	346	1.30	5,802	339	1.12
LEAR7Q		5,514	58	0.22	5,431	-32	-0.11
LFKURP		5,548	92	0.35	5,612	149	0.50
NPZAQA		5,426	-29	-0.11	5,492	29	0.10
PCATG3		5,452	-4	-0.01	5,446	-17	-0.06
PXR64Y		5,248	-208	-0.78	5,251	-212	-0.70
Q6GTXM		4,860	-596	-2.23	4,746	-716	-2.38
QDHF8		5,502	47	0.18	5,519	56	0.19
QM9YV2	*	4,889	-566	-2.12	4,744	-719	-2.39
QNJWYH		5,466	10	0.04	5,518	55	0.18



Plastics Interlaboratory Testing Program

Report #123

Analysis 721

3rd Qtr 2022

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J85			Sample J86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QQ4YN4		5,411	-45	-0.17	5,420	-43	-0.14
QYVCN3		5,558	103	0.38	5,606	143	0.48
RC3R48		5,699	244	0.91	5,712	249	0.83
T8JUBA		5,423	-33	-0.12	5,307	-155	-0.52
VLRMQC		5,406	-49	-0.18	5,402	-61	-0.20
Y7AVJN		5,530	74	0.28	5,512	50	0.16
YXZBFR		5,785	329	1.23	5,830	367	1.22
Z4VUQL		5,842	387	1.45	5,803	340	1.13
ZA2GPG		6,048	592	2.22	6,042	579	1.92
ZDP2QE		5,273	-183	-0.69	5,320	-143	-0.48
ZMA8MH		5,503	47	0.18	5,514	51	0.17
ZZZU2Q		5,467	12	0.04	5,481	18	0.06

Summary Statistics		
	Sample J85	Sample J86
Grand Means	5,455.7 psi	5,462.9 psi
Std Dev Btwn Labs	266.9 psi	301.2 psi
Statistics based on 47 of 47 reporting participants		

Sample J85: HIPS & Sample J86: HIPS



Plastics Interlaboratory Testing Program

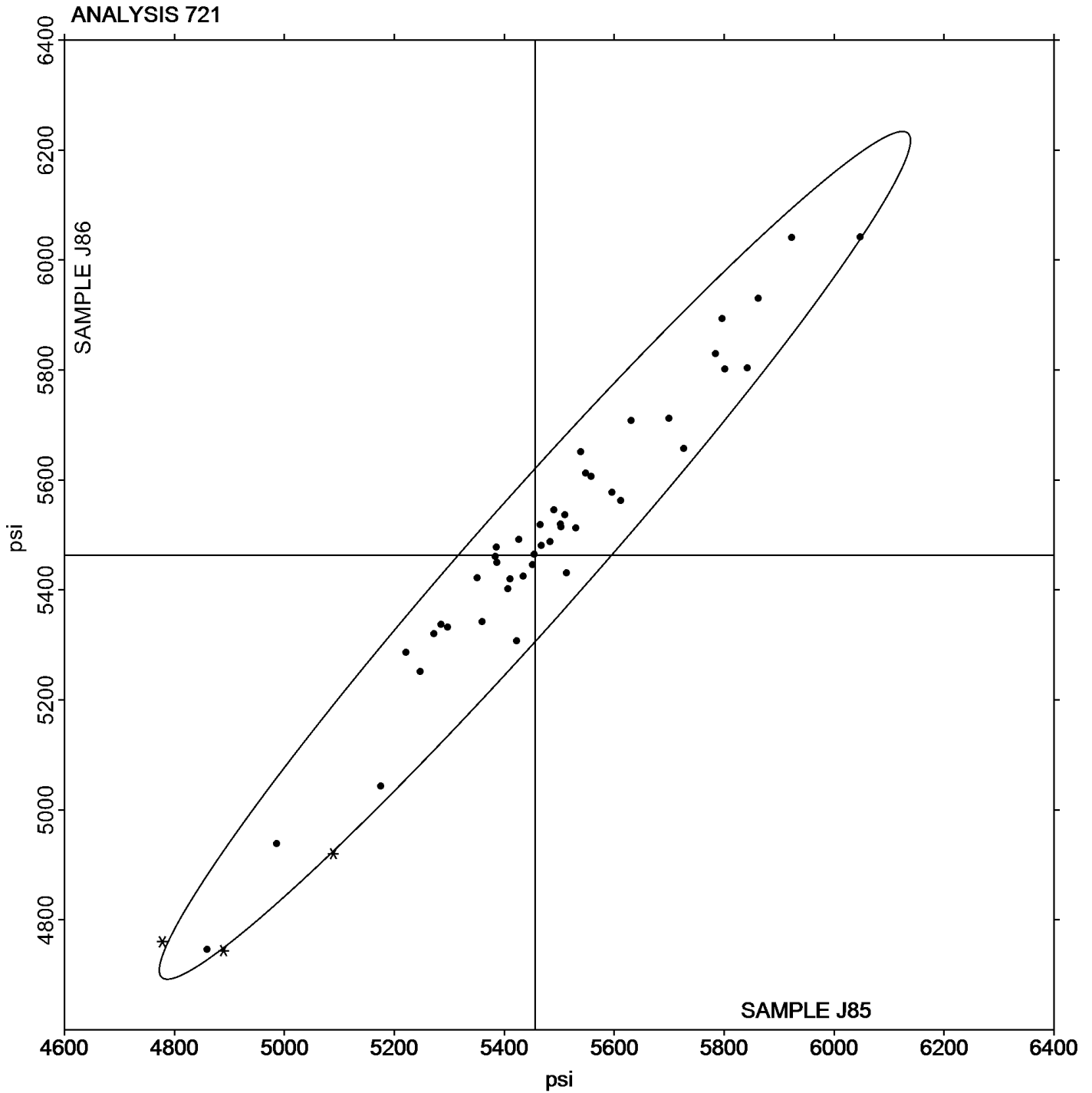
Report #123

Analysis 721

3rd Qtr 2022

Flexural Stress at 5% Strain - psi

Grand Mean Sample J85: 5,455.66 psi Grand Mean Sample J86: 5,462.90 psi





Plastics Interlaboratory Testing Program

Report #123

Analysis 722

3rd Qtr 2022

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J85			Sample J86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
299QFV		5,412	-53	-0.24	5,387	-74	-0.28
3AJ8TL		5,370	-94	-0.43	5,431	-29	-0.11
3MAU8U	*	5,189	-276	-1.27	4,996	-464	-1.80
42KUMQ		5,415	-49	-0.23	5,406	-55	-0.21
4PM7BN		5,412	-53	-0.24	5,416	-45	-0.17
6BHCDJ		5,233	-232	-1.07	5,293	-167	-0.65
6ZNQBV		5,397	-68	-0.31	5,368	-93	-0.36
74E4C6	*	5,532	67	0.31	5,708	248	0.96
7CXYGK		5,631	166	0.76	5,708	247	0.96
7XFZLR		5,314	-150	-0.69	5,340	-120	-0.46
8GKXF8		5,360	-105	-0.48	5,389	-71	-0.27
8Z3V4D		5,515	50	0.23	5,494	34	0.13
9JH48H		5,826	362	1.66	5,896	436	1.69
A7EWXJ		5,231	-234	-1.08	5,079	-382	-1.48
AEMJPK		5,602	137	0.63	5,575	115	0.44
DHJZYJ		5,640	175	0.81	5,590	130	0.50
DQPYHT		5,541	77	0.35	5,574	114	0.44
EGX6GF	X	4	-5,461	-25.12	4	-5,456	-21.12
EPCLFH	X	11,485	6,021	27.70	11,450	5,990	23.18
GB78A6		5,246	-219	-1.01	5,198	-262	-1.01
GW6X4A		5,475	10	0.05	5,466	6	0.02
GXWY37	X	4,559	-905	-4.16	4,619	-842	-3.26
J32JZ3		5,424	-40	-0.19	5,413	-48	-0.18
JPK2Z		5,326	-139	-0.64	5,358	-103	-0.40
LAD8VF		5,891	427	1.96	5,947	486	1.88
LAV83C		5,802	337	1.55	5,802	341	1.32
LEAR7Q		5,572	107	0.49	5,525	64	0.25
NPZAQA		5,382	-82	-0.38	5,442	-18	-0.07
PCATG3		5,473	9	0.04	5,468	8	0.03
PV6HDW		5,577	113	0.52	5,485	25	0.10
PXR64Y		5,243	-222	-1.02	5,247	-214	-0.83
Q6GTXM		4,920	-545	-2.51	4,810	-650	-2.52
QDHF8		5,509	45	0.20	5,524	63	0.24
QM9YV2	*	4,936	-528	-2.43	4,790	-671	-2.60
QQ4YN4		5,418	-47	-0.22	5,433	-28	-0.11



Plastics Interlaboratory Testing Program

Report #123

Analysis 722

3rd Qtr 2022

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J85			Sample J86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RC3R48		5,683	219	1.01	5,709	248	0.96
T8JUBA		5,460	-5	-0.02	5,338	-122	-0.47
V344ZZ		5,573	109	0.50	5,593	132	0.51
VLRMQC		5,261	-204	-0.94	5,256	-204	-0.79
Y7AVJN		5,552	87	0.40	5,542	81	0.31
YUZZKR		5,547	82	0.38	5,514	53	0.21
YXZBFR		5,908	443	2.04	6,060	600	2.32
Z4VUQL		5,853	389	1.79	5,824	363	1.41
ZA2GPG	X	6,130	665	3.06	6,074	614	2.37
ZDP2QE		5,295	-170	-0.78	5,354	-107	-0.41
ZMA8MH		5,506	41	0.19	5,517	57	0.22
ZZZU2Q		5,530	66	0.30	5,535	74	0.29

Summary Statistics		
	Sample J85	Sample J86
Grand Means	5,464.7 psi	5,460.4 psi
Stnd Dev Btwn Labs	217.4 psi	258.4 psi
Statistics based on 43 of 47 reporting participants		

Sample J85: HIPS & Sample J86: HIPS

Comments on Assigned Data Flags for Test #722

- ZA2GPG (X) - Data for sample J85 are high.
- EPCLFH (X) - Extreme data.
- GXWY37 (X) - Data for both samples are low. Possible Systematic Error.
- EGX6GF (X) - Extreme data.



Plastics Interlaboratory Testing Program

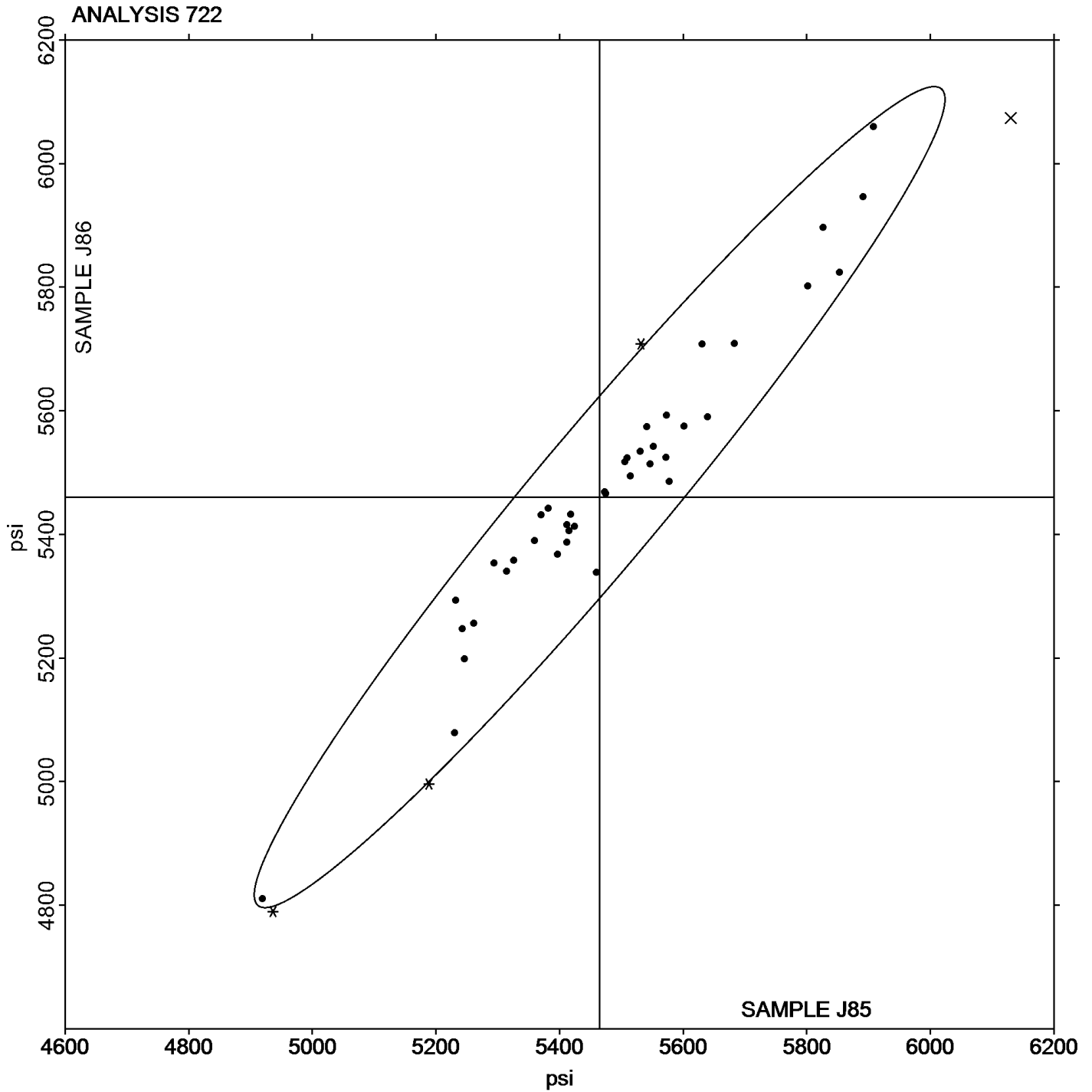
Analysis 722

Flexural Stress at Yield - psi

Report #123

3rd Qtr 2022

Grand Mean Sample J85: 5,464.67 psi Grand Mean Sample J86: 5,460.42 psi





Plastics Interlaboratory Testing Program

Report #123

Analysis 730

3rd Qtr 2022

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24BAZG		23.17	-0.30	-0.46	23.37	-0.10	-0.14
24FMRJ		23.27	-0.20	-0.31	22.95	-0.52	-0.74
26KX49	X	25.69	2.22	3.42	24.99	1.52	2.15
2BBDTF		22.64	-0.83	-1.28	22.80	-0.67	-0.95
2GLTQN		23.30	-0.17	-0.27	23.24	-0.23	-0.32
3AC8NB		23.80	0.33	0.51	23.86	0.39	0.55
3TQ2FF		23.34	-0.13	-0.20	23.42	-0.05	-0.07
3ZEXNG		22.13	-1.33	-2.05	21.79	-1.67	-2.37
42Z9UZ		23.74	0.27	0.42	23.79	0.32	0.46
4ATNFX		23.44	-0.03	-0.04	23.00	-0.47	-0.66
4PM7BN		23.10	-0.37	-0.57	22.82	-0.65	-0.92
7CXYGK		23.11	-0.35	-0.55	22.95	-0.52	-0.73
7TK66D		22.79	-0.68	-1.04	22.85	-0.62	-0.88
8GJ86H		23.42	-0.05	-0.07	23.18	-0.29	-0.41
9G2EBZ	X	24.43	0.96	1.48	23.54	0.07	0.10
9JHHLX		23.21	-0.26	-0.40	23.01	-0.46	-0.65
9TRB3Q		23.58	0.12	0.18	23.62	0.15	0.21
9TTZGV		24.54	1.07	1.65	24.55	1.08	1.53
AEMJPK		23.70	0.23	0.36	23.67	0.21	0.29
BG9HTG		23.34	-0.13	-0.20	23.00	-0.47	-0.66
C8YHH7		24.14	0.67	1.03	24.14	0.67	0.95
CN7LZQ		24.39	0.92	1.42	24.35	0.89	1.26
CYM7L9	X	26.61	3.14	4.83	26.11	2.64	3.74
D7J6C3		23.48	0.01	0.02	23.40	-0.07	-0.10
DBHV29		24.14	0.67	1.03	24.30	0.83	1.18
DHJZYJ		23.26	-0.21	-0.32	23.66	0.19	0.27
DLD4JB		24.45	0.98	1.51	24.54	1.07	1.52
DLVF6W	X	21.91	-1.56	-2.40	22.82	-0.65	-0.92
DQPYHT		23.27	-0.20	-0.30	23.35	-0.12	-0.17
FHMTBV		22.80	-0.67	-1.03	22.68	-0.79	-1.12
FQ2EN7		22.68	-0.79	-1.21	23.12	-0.35	-0.50
GG9NCX		22.77	-0.70	-1.08	22.80	-0.66	-0.94
GMZNY7	*	22.63	-0.83	-1.28	23.20	-0.27	-0.38
HDRD6L	*	22.07	-1.40	-2.16	21.51	-1.96	-2.77
HRBABA		23.35	-0.11	-0.18	23.34	-0.13	-0.19



Plastics Interlaboratory Testing Program

Report #123

Analysis 730

3rd Qtr 2022

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
JPK2Z		23.58	0.11	0.17	23.56	0.09	0.13
JYHB23		23.37	-0.10	-0.16	23.49	0.02	0.02
K7FA6W		23.18	-0.29	-0.45	23.02	-0.45	-0.64
K7MC2W		23.88	0.41	0.63	24.00	0.53	0.75
K8BZ6A	*	22.66	-0.81	-1.24	23.14	-0.33	-0.47
K8TWMC		24.38	0.91	1.40	24.42	0.95	1.35
LFKURP		24.01	0.55	0.84	24.18	0.71	1.01
LFY3WJ	X	20.66	-2.81	-4.32	20.85	-2.62	-3.71
LXVCGV		23.60	0.13	0.20	24.00	0.53	0.75
M6CLJ4		23.75	0.28	0.43	23.74	0.28	0.39
MT3T8Q	X	26.89	3.42	5.26	27.08	3.61	5.12
MXBQLJ		23.53	0.06	0.09	23.16	-0.31	-0.43
NLHA8N		23.20	-0.27	-0.41	23.30	-0.17	-0.24
P4D3RL		24.52	1.05	1.62	24.54	1.07	1.52
P7J2RF		23.68	0.22	0.33	23.75	0.28	0.40
P977EY		25.02	1.56	2.39	24.99	1.52	2.16
PCATG3		23.36	-0.11	-0.17	23.28	-0.19	-0.27
PV6HDW		23.91	0.44	0.68	23.75	0.28	0.40
PXR64Y		22.64	-0.83	-1.27	22.72	-0.75	-1.06
QE73HV	X	20.38	-3.09	-4.75	20.64	-2.83	-4.01
QTP8UD	X	1,799.28	1,775.81	2,732.59	1,806.44	1,782.97	2,527.83
RT9TYT	X	17.45	-6.02	-9.26	17.14	-6.33	-8.98
TXER4R		23.28	-0.19	-0.29	23.30	-0.17	-0.24
X6DGGJ		23.35	-0.12	-0.19	23.07	-0.40	-0.57
YDQFJE	*	25.26	1.80	2.76	25.42	1.95	2.77
ZA2GPG		23.46	-0.01	-0.01	23.48	0.01	0.02
ZDP2QE		23.15	-0.32	-0.49	23.25	-0.22	-0.31
ZZZU2Q	X	20.79	-2.67	-4.12	20.50	-2.97	-4.21

Summary Statistics

	Sample C85	Sample C86
Grand Means	23.469 MPa	23.469 MPa
Std Dev Btwn Labs	0.650 MPa	0.705 MPa

Statistics based on 53 of 63 reporting participants

Sample C85: HIPS & Sample C86: HIPS



Comments on Assigned Data Flags for Test #730

- ZZZU2Q (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample C85.
- LFY3WJ (X) - Data for both samples are low. Possible Systematic Error.
- 9G2EBZ (X) - Inconsistent in testing between samples.
- QE73HV (X) - Data for both samples are low. Possible Systematic Error.
- RT9TYT (X) - Data for both samples are low. Possible Systematic Error.
- CYM7L9 (X) - Data for both samples are high. Possible Systematic Error.
- MT3T8Q (X) - Data for both samples are high. Possible Systematic Error.
- QTP8UD (X) - Extreme data. Data appeared to be transposed throughout the 730 test series.
- DLVF6W (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- 26KX49 (X) - Data for sample C85 are high.



Plastics Interlaboratory Testing Program

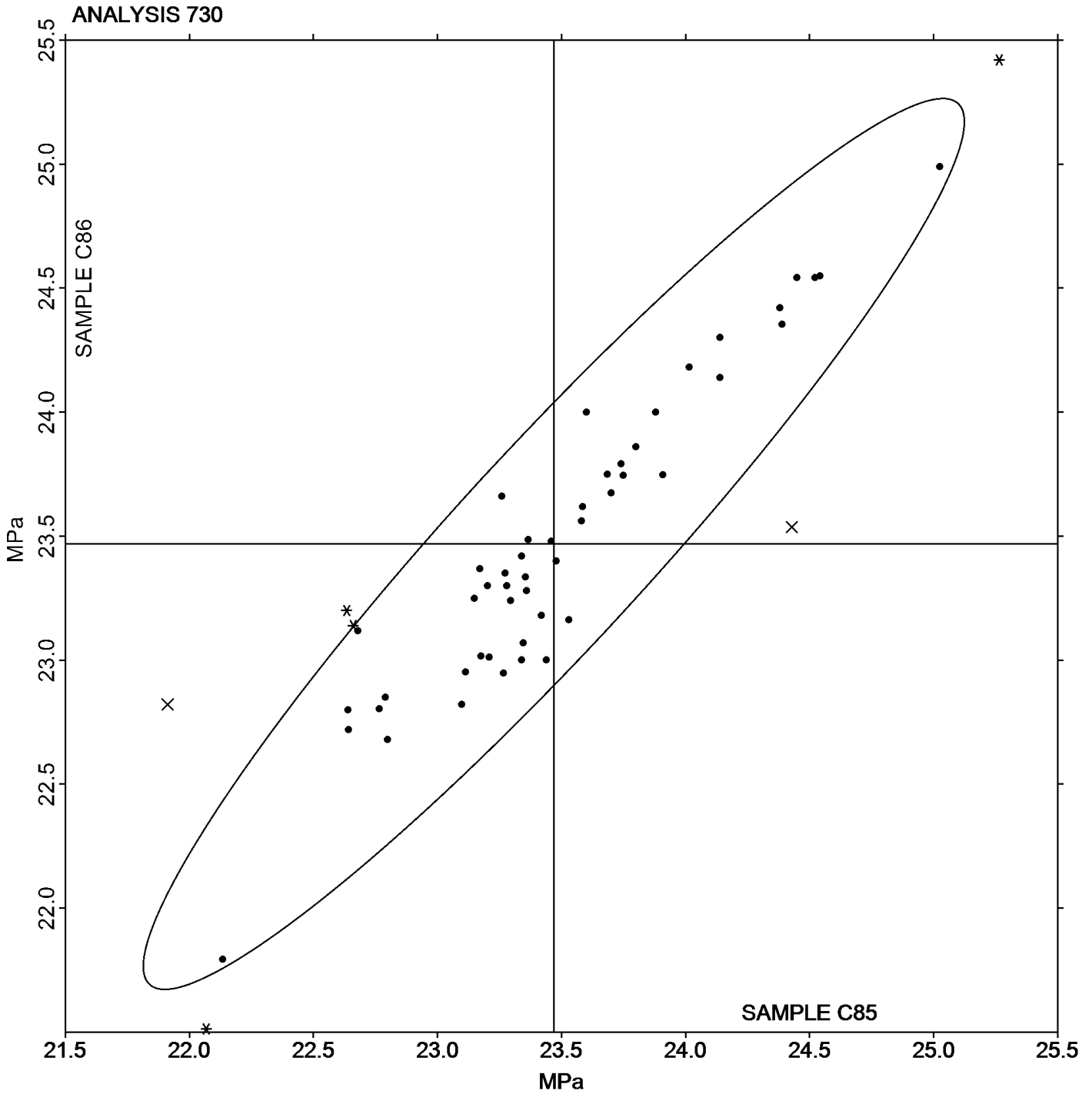
Analysis 730

Tensile Stress at Yield - MPa

Report #123

3rd Qtr 2022

Grand Mean Sample C85: 23.469 MPa Grand Mean Sample C86: 23.469 MPa





Plastics Interlaboratory Testing Program

Report #123

Analysis 731

3rd Qtr 2022

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24BAZG		18.05	0.07	0.15	18.16	0.17	0.30
24FMRJ		18.21	0.22	0.45	18.00	0.00	0.00
26KX49	*	19.33	1.34	2.71	19.23	1.23	2.16
2BBDTF		17.56	-0.42	-0.85	17.48	-0.51	-0.90
2GLTQN		17.48	-0.50	-1.00	17.26	-0.74	-1.29
3AC8NB		17.82	-0.16	-0.33	17.76	-0.23	-0.41
3TQ2FF		17.42	-0.56	-1.13	17.66	-0.33	-0.58
3ZEXNG		18.19	0.20	0.41	17.86	-0.13	-0.23
42Z9UZ		17.97	-0.01	-0.02	17.90	-0.09	-0.16
4ATNFX	X	23.44	5.46	11.02	23.00	5.01	8.76
4PM7BN		17.16	-0.82	-1.65	17.73	-0.27	-0.47
7CXYGK		17.65	-0.33	-0.67	17.56	-0.43	-0.76
7TK66D		17.27	-0.71	-1.44	17.60	-0.40	-0.70
8GJ86H		17.98	0.00	0.00	18.06	0.07	0.12
9G2EBZ		19.18	1.20	2.42	19.37	1.38	2.41
9JHHLX		17.60	-0.38	-0.76	17.38	-0.61	-1.07
9TRB3Q		17.89	-0.09	-0.19	17.73	-0.26	-0.45
9TTZGV		18.51	0.53	1.06	18.51	0.51	0.90
AEMJPK		18.38	0.40	0.80	18.39	0.40	0.69
BG9HTG		17.60	-0.38	-0.77	17.46	-0.53	-0.93
C8YHH7		17.84	-0.14	-0.29	18.04	0.05	0.08
CN7LZQ		18.42	0.43	0.88	18.71	0.72	1.25
CYM7L9	X	21.16	3.18	6.42	21.41	3.42	5.97
D7J6C3		18.02	0.04	0.08	17.76	-0.23	-0.41
DBHV29		18.38	0.40	0.80	18.46	0.47	0.81
DHJZYJ		18.30	0.32	0.64	18.26	0.27	0.47
DLD4JB	*	19.31	1.33	2.69	19.13	1.13	1.98
DLVF6W		17.77	-0.21	-0.42	18.06	0.06	0.11
DQPYHT		17.77	-0.21	-0.42	17.37	-0.62	-1.08
GG9NCX		17.82	-0.16	-0.33	17.79	-0.20	-0.36
HDRD6L		17.72	-0.27	-0.54	17.68	-0.31	-0.55
HRBABA		17.64	-0.34	-0.69	17.69	-0.30	-0.53
JPK2Z		18.05	0.07	0.15	17.87	-0.13	-0.22
JYHB23	*	18.19	0.21	0.42	19.05	1.05	1.84
K7MC2W		17.86	-0.12	-0.25	18.42	0.43	0.74



Plastics Interlaboratory Testing Program

Report #123

Analysis 731

3rd Qtr 2022

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
LFKURP		18.74	0.76	1.54	18.25	0.26	0.45
LXVCGV		18.04	0.06	0.12	17.92	-0.07	-0.13
M6CLJ4		18.01	0.03	0.06	18.04	0.04	0.08
MT3T8Q	X	21.36	3.38	6.82	21.21	3.22	5.63
MXBQLJ	*	17.10	-0.88	-1.78	16.44	-1.55	-2.71
NLHA8N		17.76	-0.22	-0.44	18.33	0.34	0.59
P4D3RL		18.77	0.79	1.60	18.94	0.95	1.65
P7J2RF		17.77	-0.21	-0.42	18.39	0.39	0.69
P977EY		18.20	0.21	0.43	18.76	0.76	1.33
PCATG3		17.76	-0.22	-0.45	17.78	-0.21	-0.37
PV6HDW		18.33	0.34	0.69	18.07	0.07	0.13
PXR64Y		17.42	-0.56	-1.14	17.07	-0.93	-1.62
QE73HV	X	15.82	-2.16	-4.36	16.30	-1.69	-2.96
QTP8UD	X	23.98	6.00	12.11	23.96	5.97	10.43
TXER4R		17.38	-0.60	-1.21	17.64	-0.35	-0.62
WXNYRW		18.28	0.30	0.61	18.06	0.07	0.12
X6DGGJ		17.84	-0.14	-0.29	17.26	-0.73	-1.28
YDQFJE	X	33.58	15.60	31.49	29.36	11.37	19.88
ZA2GPG		17.64	-0.34	-0.69	17.80	-0.19	-0.34
ZDP2QE		18.00	0.02	0.04	17.70	-0.30	-0.52
ZZZU2Q		17.69	-0.29	-0.59	17.89	-0.10	-0.18

Summary Statistics		
	Sample C85	Sample C86
Grand Means	17.982 MPa	17.994 MPa
Stnd Dev Btwn Labs	0.495 MPa	0.572 MPa
Statistics based on 50 of 56 reporting participants		

Sample C85: HIPS & Sample C86: HIPS



Plastics Interlaboratory Testing Program

Analysis 731

Tensile Stress at Break - MPa

Report #123

3rd Qtr 2022

Comments on Assigned Data Flags for Test #731

- QE73HV (X) - Data for both samples are low. Possible Systematic Error.
- CYM7L9 (X) - Data for both samples are high. Possible Systematic Error.
- MT3T8Q (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample C86.
- YDQFJE (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 4ATNFX (X) - Data for both samples are high. Possible Systematic Error.
- QTP8UD (X) - Data for both samples are high. Possible Systematic Error.



Plastics Interlaboratory Testing Program

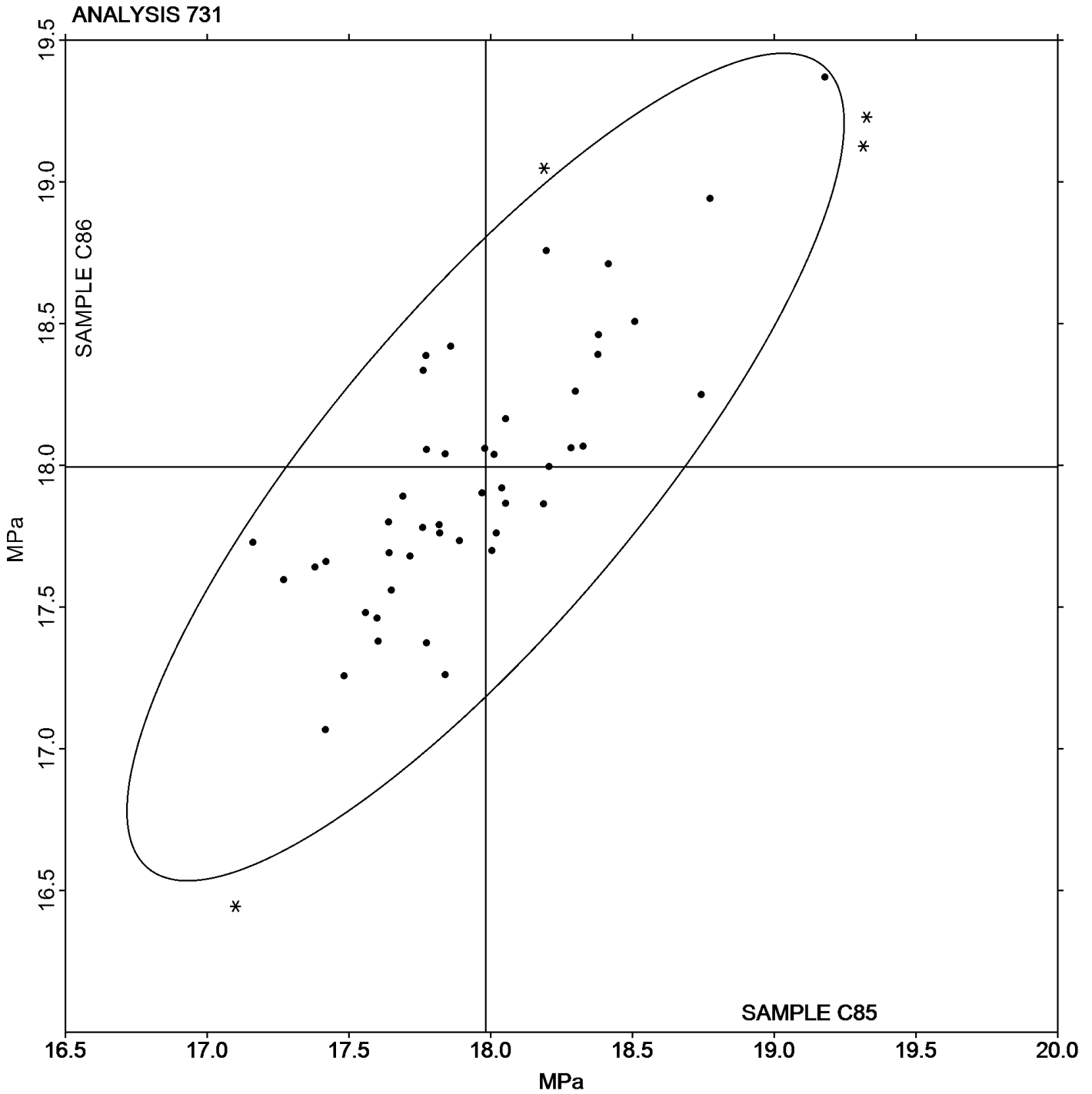
Analysis 731

Tensile Stress at Break - MPa

Report #123

3rd Qtr 2022

Grand Mean Sample C85: 17.982 MPa Grand Mean Sample C86: 17.994 MPa





Plastics Interlaboratory Testing Program

Report #123

Analysis 732

3rd Qtr 2022

Percent Strain at Yield

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24BAZG	*	1.380	-0.120	-1.76	1.454	-0.048	-0.64
24FMRJ		1.510	0.010	0.15	1.468	-0.034	-0.45
26KX49		1.552	0.052	0.77	1.528	0.026	0.35
2BBDTF		1.500	0.000	0.01	1.520	0.018	0.24
2GLTQN		1.530	0.030	0.45	1.536	0.034	0.45
3AC8NB		1.460	-0.040	-0.58	1.460	-0.042	-0.56
3TQ2FF		1.500	0.000	0.01	1.500	-0.002	-0.03
3ZEXNG		1.508	0.008	0.12	1.480	-0.022	-0.29
42Z9UZ	X	1.328	-0.172	-2.53	1.150	-0.352	-4.69
4ATNFX		1.380	-0.120	-1.76	1.360	-0.142	-1.89
4PM7BN		1.484	-0.016	-0.23	1.466	-0.036	-0.48
7CXYGK	X	1.900	0.400	5.91	1.800	0.298	3.97
7TK66D	X	1.402	-0.098	-1.44	1.614	0.112	1.49
8GJ86H		1.508	0.008	0.12	1.486	-0.016	-0.21
9JHHLX		1.558	0.058	0.86	1.524	0.022	0.30
9TRB3Q		1.496	-0.004	-0.05	1.479	-0.023	-0.30
9TTZGV		1.552	0.052	0.77	1.611	0.109	1.45
AEMJPK		1.482	-0.018	-0.26	1.474	-0.028	-0.37
BG9HTG		1.490	-0.010	-0.14	1.484	-0.018	-0.24
C8YHH7		1.522	0.022	0.33	1.518	0.016	0.21
CYM7L9	X	1.730	0.230	3.40	1.792	0.290	3.87
D7J6C3	*	1.700	0.200	2.96	1.700	0.198	2.64
DBHV29	X	2.840	1.340	19.77	2.860	1.358	18.10
DHJZYJ		1.438	-0.062	-0.91	1.526	0.024	0.32
DLD4JB		1.532	0.032	0.48	1.518	0.016	0.21
DLVF6W	X	1.072	-0.427	-6.30	1.294	-0.208	-2.77
DQPYHT		1.458	-0.042	-0.61	1.472	-0.030	-0.40
GG9NCX		1.400	-0.100	-1.47	1.404	-0.098	-1.31
HRBABA		1.580	0.080	1.19	1.604	0.102	1.36
JPK2Z		1.538	0.038	0.57	1.542	0.040	0.53
JYHB23		1.540	0.040	0.60	1.598	0.096	1.28
K7FA6W		1.410	-0.090	-1.32	1.400	-0.102	-1.36
K7MC2W		1.480	-0.020	-0.29	1.480	-0.022	-0.29
K8TWMC		1.500	0.000	0.01	1.500	-0.002	-0.03
LFKURP		1.480	-0.020	-0.29	1.486	-0.016	-0.21



Plastics Interlaboratory Testing Program

Report #123

Analysis 732

3rd Qtr 2022

Percent Strain at Yield

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
LXVCGV		1.516	0.016	0.24	1.510	0.008	0.11
M6CLJ4		1.516	0.016	0.24	1.514	0.012	0.16
MT3T8Q	X	1.782	0.282	4.17	1.768	0.266	3.55
MXBQLJ		1.484	-0.016	-0.23	1.414	-0.088	-1.17
NLHA8N		1.512	0.012	0.18	1.512	0.010	0.13
P4D3RL		1.510	0.010	0.15	1.510	0.008	0.11
P7J2RF		1.528	0.028	0.42	1.532	0.030	0.40
P977EY		1.630	0.130	1.92	1.656	0.154	2.05
PCATG3		1.540	0.040	0.60	1.520	0.018	0.24
PV6HDW	*	1.488	-0.012	-0.17	1.582	0.080	1.07
PXR64Y		1.516	0.016	0.24	1.518	0.016	0.21
QE73HV	*	1.330	-0.170	-2.50	1.312	-0.190	-2.53
QTP8UD	X	18.250	16.750	247.03	18.266	16.764	223.46
TXER4R		1.596	0.096	1.42	1.596	0.094	1.25
X6DGGJ		1.500	0.000	0.01	1.460	-0.042	-0.56
YDQFJE	*	1.448	-0.052	-0.76	1.550	0.048	0.64
ZA2GPG		1.540	0.040	0.60	1.500	-0.002	-0.03
ZDP2QE		1.524	0.024	0.36	1.520	0.018	0.24
ZZZU2Q	*	1.336	-0.164	-2.41	1.308	-0.194	-2.59

Summary Statistics		
	Sample C85	Sample C86
Grand Means	1.4996 Percent	1.5020 Percent
Std Dev Btwn Labs	0.0678 Percent	0.0750 Percent
Statistics based on 46 of 54 reporting participants		

Sample C85: HIPS & Sample C86: HIPS



Comments on Assigned Data Flags for Test #732

- 7CXYGK (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample C85.
- DBHV29 (X) - Data for both samples are high. Possible Systematic Error.
- 7TK66D (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C86.
- 42Z9UZ (X) - Data for sample C86 are low. Inconsistent within the determinations of both samples.
- CYM7L9 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- MT3T8Q (X) - Data for both samples are high. Possible Systematic Error.
- QTP8UD (X) - Extreme data. Data appeared to be transposed throughout the 730 test series.
- DLVF6W (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



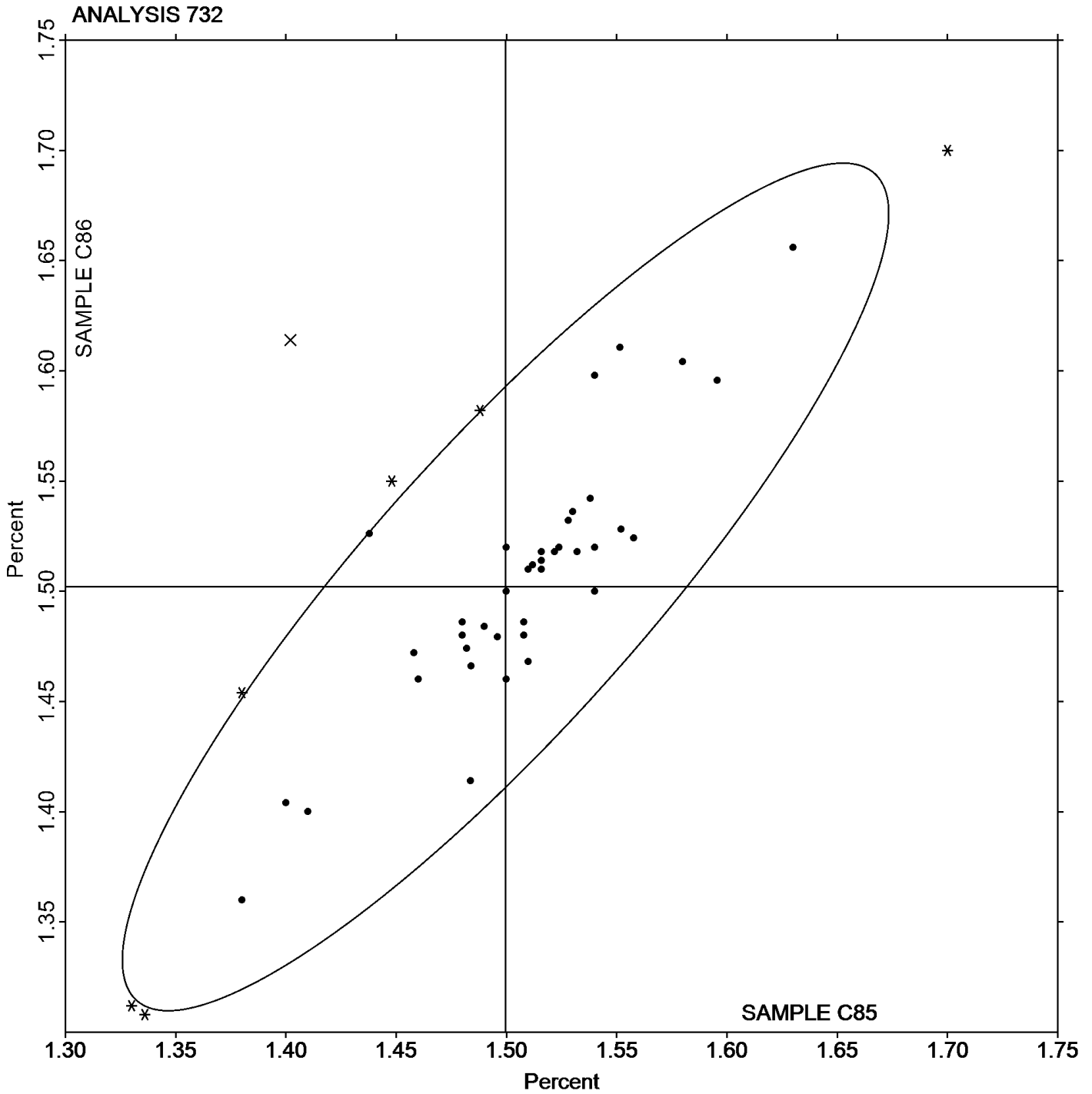
Plastics Interlaboratory Testing Program

Analysis 732 Percent Strain at Yield

Report #123

3rd Qtr 2022

Grand Mean Sample C85: 1.4996 Percent Grand Mean Sample C86: 1.5020 Percent





Plastics Interlaboratory Testing Program

Report #123

Analysis 734

3rd Qtr 2022

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24BAZG		1,854	80	0.75	1,841	70	0.61
24FMRJ	X	1,713	-61	-0.57	1,830	59	0.52
26KX49		1,893	119	1.11	1,866	95	0.83
2BBDTF		1,860	85	0.80	1,849	79	0.68
2GLTQN		1,734	-41	-0.38	1,715	-56	-0.48
3AC8NB		1,811	37	0.34	1,795	24	0.21
3TQ2FF		1,754	-20	-0.19	1,748	-23	-0.20
3ZEXNG		1,714	-61	-0.57	1,695	-76	-0.66
42Z9UZ	X	6,533	4,759	44.39	3,500	1,730	15.05
4ATNFX		1,944	169	1.58	1,946	175	1.52
4PM7BN		1,776	2	0.01	1,782	11	0.10
7CXYGK		1,702	-73	-0.68	1,703	-68	-0.59
7TK66D		1,764	-10	-0.10	1,736	-35	-0.30
8GJ86H		1,771	-3	-0.03	1,801	30	0.26
9JHHLX		1,735	-39	-0.37	1,679	-91	-0.79
9TRB3Q		1,754	-20	-0.18	1,754	-17	-0.14
9TTZGV	*	1,603	-171	-1.60	1,531	-239	-2.08
AEMJPK		1,868	94	0.88	1,851	80	0.70
BG9HTG		1,774	0	0.00	1,769	-2	-0.01
C8YHH7		1,769	-5	-0.05	1,779	9	0.08
CN7LZQ		1,812	38	0.35	1,827	56	0.49
CYM7L9		2,005	231	2.15	2,043	272	2.37
D7J6C3		1,724	-50	-0.47	1,722	-49	-0.42
DBHV29		1,784	10	0.09	1,781	10	0.09
DHJZYJ		1,728	-46	-0.43	1,674	-97	-0.84
DLD4JB		1,805	31	0.29	1,797	26	0.23
DLVF6W		1,761	-13	-0.12	1,751	-20	-0.17
DQPYHT		1,760	-14	-0.13	1,737	-34	-0.29
GG9NCX	*	1,668	-106	-0.99	1,727	-44	-0.38
HRBABA	*	1,478	-297	-2.77	1,474	-296	-2.58
JPK2Z		1,668	-106	-0.99	1,666	-105	-0.91
JYHB23	X	1,457	-317	-2.96	1,740	-31	-0.27
K7FA6W		1,825	50	0.47	1,839	68	0.59
K7MC2W		1,805	31	0.29	1,822	51	0.44
K8TWMC		1,924	150	1.40	1,922	151	1.32



Plastics Interlaboratory Testing Program

Report #123

Analysis 734

3rd Qtr 2022

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C85			Sample C86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
LFKURP		1,876	102	0.95	1,872	101	0.88
LXVCGV		1,816	42	0.39	1,806	36	0.31
M6CLJ4		1,844	69	0.65	1,847	76	0.66
MT3T8Q	*	1,435	-340	-3.17	1,419	-351	-3.06
MXBQLJ	*	2,052	278	2.59	2,098	327	2.85
NLHA8N		1,658	-116	-1.09	1,669	-101	-0.88
P4D3RL		1,842	67	0.63	1,839	69	0.60
P7J2RF		1,679	-96	-0.89	1,689	-82	-0.71
P977EY	*	1,860	86	0.80	1,796	25	0.22
PCATG3		1,666	-108	-1.01	1,664	-107	-0.93
PV6HDW		1,844	69	0.65	1,857	87	0.75
PXR64Y		1,775	0	0.00	1,738	-32	-0.28
QE73HV		1,776	2	0.01	1,798	27	0.24
QTP8UD	X	2	-1,773	-16.54	2	-1,769	-15.39
TXER4R		1,753	-21	-0.20	1,751	-20	-0.17
WXNYRW		1,799	25	0.23	1,793	23	0.20
X6DGGJ		1,775	1	0.01	1,799	28	0.25
YDQFJE	X	2,189	415	3.87	1,967	196	1.71
ZA2GPG		1,774	0	0.00	1,788	17	0.15
ZDP2QE		1,704	-70	-0.65	1,693	-78	-0.68
ZZZU2Q		1,732	-42	-0.39	1,762	-8	-0.07

Summary Statistics		
	Sample C85	Sample C86
Grand Means	1,774.2 MPa	1,770.5 MPa
Stnd Dev Btwn Labs	107.2 MPa	115.0 MPa
Statistics based on 51 of 56 reporting participants		

Sample C85: HIPS & Sample C86: HIPS

Comments on Assigned Data Flags for Test #734

- 24FMRJ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- JYHB23 (X) - Data for sample C85 are low. Inconsistent within the determinations of both samples.
- 42Z9UZ (X) - Extreme data.
- YDQFJE (X) - Data for sample C85 are high. Inconsistent within the determinations of both samples.
- QTP8UD (X) - Extreme data. Data appeared to be transposed throughout the 730 test series.



Plastics Interlaboratory Testing Program

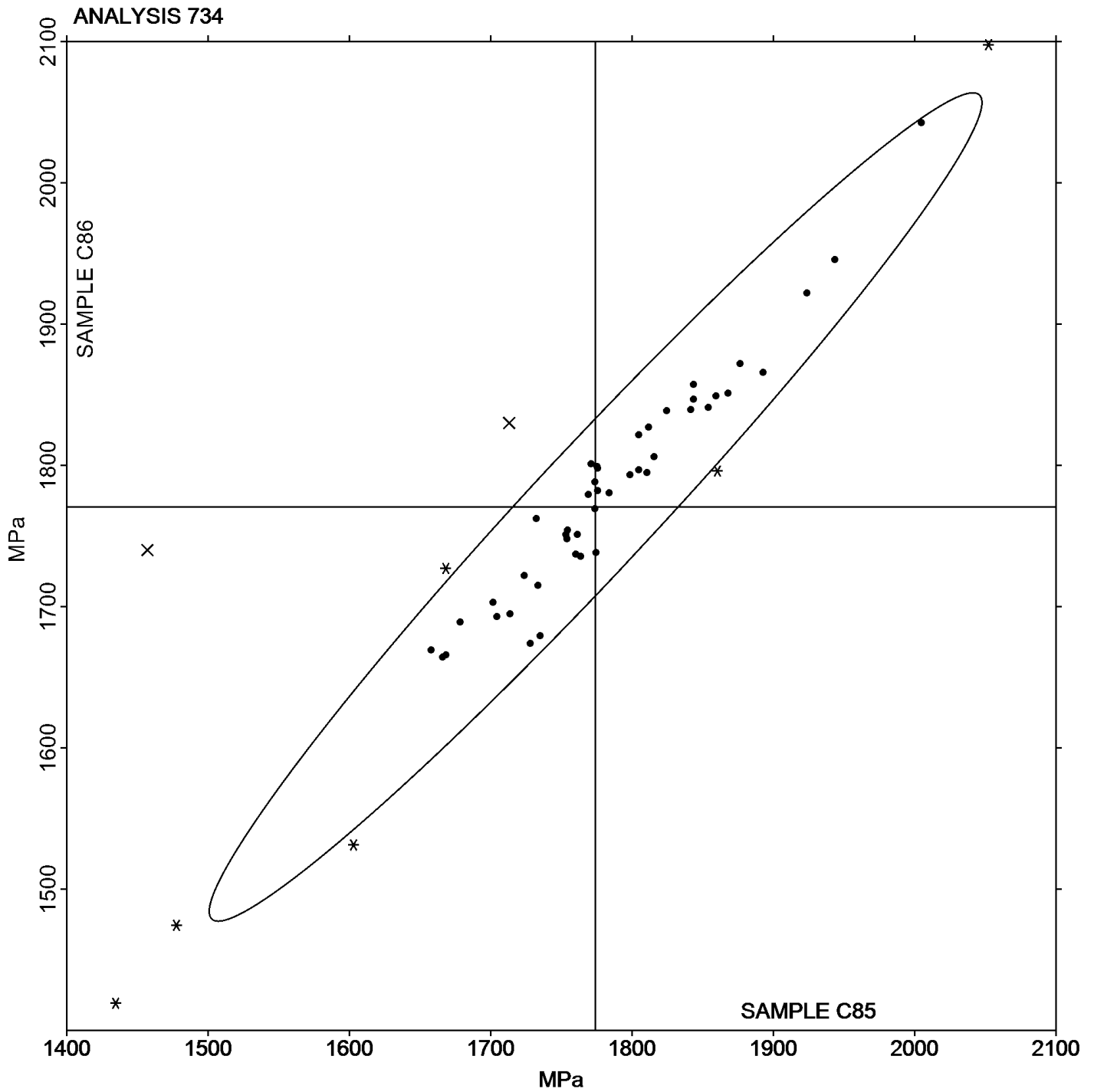
Analysis 734

Modulus of Elasticity - MPa

Report #123

3rd Qtr 2022

Grand Mean Sample C85: 1,774.19 MPa Grand Mean Sample C86: 1,770.53 MPa





Plastics Interlaboratory Testing Program

Report #123

Analysis 736

3rd Qtr 2022

Flexural Modulus - MPa

WebCode	Data Flag	Sample K85			Sample K86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24FMRJ		1,705	-81	-1.19	1,698	-89	-1.25
26KX49	X	2,038	252	3.68	2,057	269	3.79
2BBDTF		1,873	87	1.27	1,916	128	1.80
3AC8NB		1,776	-11	-0.15	1,728	-60	-0.84
3TQ2FF		1,869	83	1.21	1,897	110	1.55
3ZEXNG		1,911	125	1.82	1,885	97	1.37
4PM7BN		1,729	-57	-0.84	1,732	-55	-0.78
7TK66D		1,817	31	0.45	1,804	16	0.23
8GJ86H		1,758	-29	-0.42	1,761	-26	-0.37
9G2EBZ		1,745	-41	-0.60	1,766	-21	-0.30
9TRB3Q		1,801	14	0.21	1,796	8	0.12
9TTZGV		1,784	-3	-0.04	1,783	-4	-0.06
AEMJPK		1,696	-90	-1.32	1,717	-70	-0.99
BG9HTG		1,888	101	1.48	1,879	91	1.28
C8YHH7		1,838	51	0.75	1,837	49	0.70
CN7LZQ		1,849	63	0.92	1,871	83	1.17
CYM7L9	*	1,949	163	2.38	1,931	143	2.02
DBHV29		1,800	13	0.20	1,779	-8	-0.12
DLD4JB	*	1,923	137	2.00	1,956	168	2.37
FHMTBV		1,714	-73	-1.06	1,713	-75	-1.05
FQ2EN7		1,759	-28	-0.41	1,752	-35	-0.49
GG9NCX		1,797	10	0.15	1,837	50	0.70
HRBABA	*	1,755	-32	-0.47	1,706	-82	-1.15
JJPK2Z		1,767	-20	-0.29	1,740	-47	-0.66
JNHPU4		1,640	-147	-2.15	1,629	-159	-2.23
JYHB23		1,735	-52	-0.76	1,750	-37	-0.52
K7FA6W		1,743	-44	-0.64	1,751	-37	-0.52
K7MC2W		1,736	-50	-0.74	1,737	-50	-0.71
K8BZ6A		1,796	9	0.14	1,779	-9	-0.13
K8TWMC		1,770	-17	-0.24	1,772	-16	-0.22
LAD8VF		1,736	-51	-0.75	1,759	-29	-0.41
LFKURP		1,832	45	0.66	1,829	41	0.58
LFY3WJ		1,826	39	0.58	1,830	42	0.60
LXVCGV		1,781	-6	-0.09	1,786	-2	-0.02
M6CLJ4		1,853	66	0.97	1,840	52	0.73



Plastics Interlaboratory Testing Program

Report #123

Analysis 736

3rd Qtr 2022

Flexural Modulus - MPa

WebCode	Data Flag	Sample K85			Sample K86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MT3T8Q	X	1,277	-510	-7.45	1,282	-506	-7.11
MXBQLJ		1,721	-66	-0.96	1,738	-50	-0.70
NLHA8N		1,705	-82	-1.19	1,728	-59	-0.83
P4D3RL		1,821	34	0.50	1,810	22	0.31
P7J2RF		1,869	83	1.21	1,871	84	1.18
P7ZNG3		1,646	-141	-2.06	1,649	-139	-1.95
P977EY		1,892	105	1.54	1,892	104	1.47
PCATG3		1,753	-34	-0.50	1,768	-19	-0.27
PV6HDW		1,782	-5	-0.07	1,809	21	0.30
PXR64Y		1,796	9	0.13	1,795	8	0.11
QE73HV		1,824	37	0.54	1,822	35	0.49
QTP8UD		1,854	67	0.99	1,851	63	0.89
RBPVX3		1,766	-20	-0.30	1,763	-25	-0.35
TXER4R		1,733	-53	-0.78	1,737	-51	-0.71
YDQFJE	X	2,075	289	4.22	2,094	307	4.31
ZA2GPG		1,758	-29	-0.42	1,758	-30	-0.42
ZDP2QE		1,748	-39	-0.57	1,761	-27	-0.37
ZZZU2Q		1,713	-73	-1.07	1,680	-108	-1.51

Summary Statistics

	Sample K85	Sample K86
Grand Means	1,786.6 MPa	1,787.6 MPa
Std Dev Btwn Labs	68.4 MPa	71.1 MPa

Statistics based on 50 of 53 reporting participants

Sample K85: HIPS & Sample K86: HIPS

Comments on Assigned Data Flags for Test #736

- MT3T8Q (X) - Data for both samples are low. Possible Systematic Error.
- YDQFJE (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 26KX49 (X) - Data for both samples are high. Possible Systematic Error.



Plastics Interlaboratory Testing Program

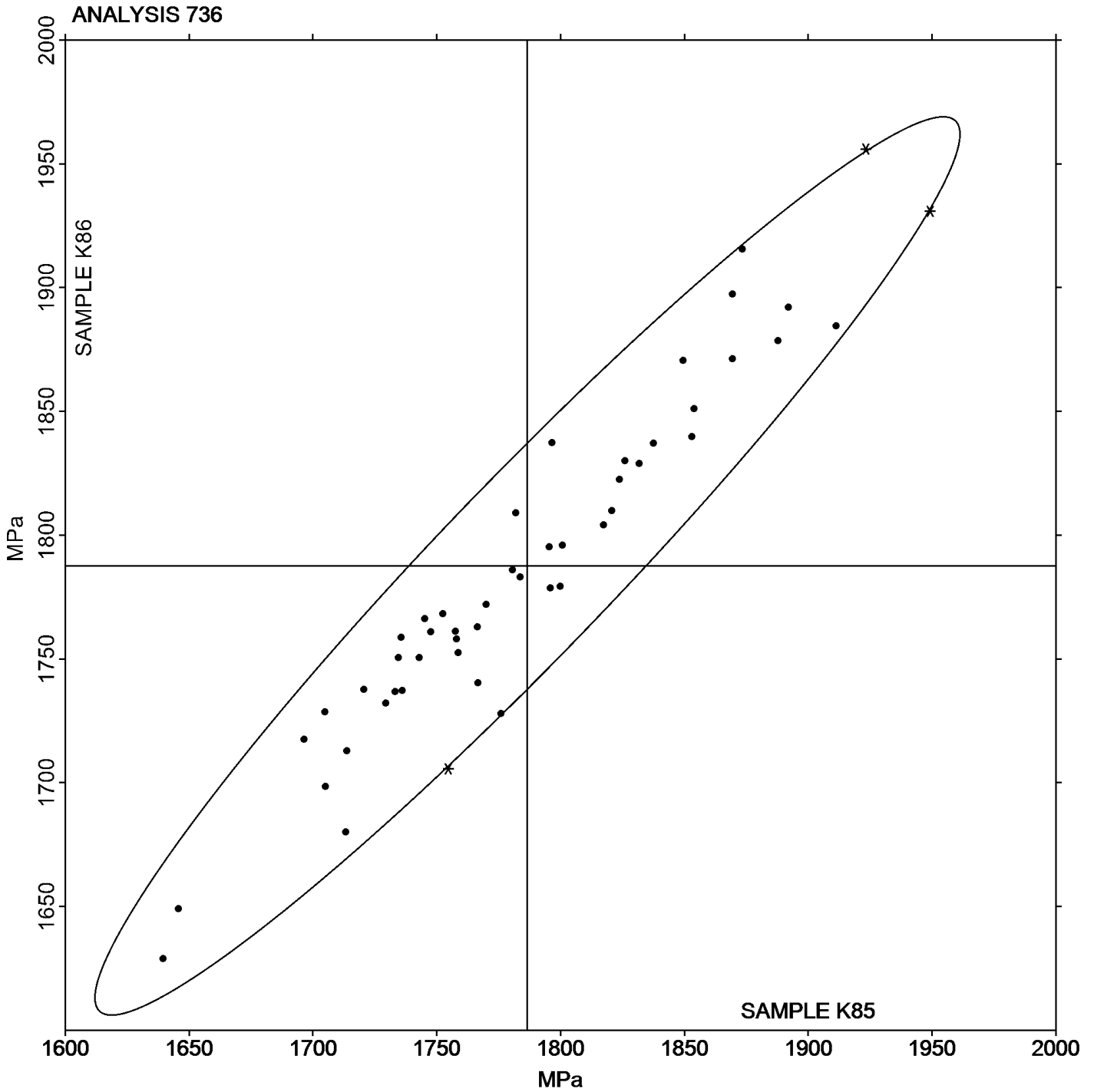
Analysis 736

Flexural Modulus - MPa

Report #123

3rd Qtr 2022

Grand Mean Sample K85: 1,786.59 MPa Grand Mean Sample K86: 1,787.57 MPa





Plastics Interlaboratory Testing Program

Report #123

Analysis 737

3rd Qtr 2022

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K85			Sample K86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24FMRJ		37.19	-0.04	-0.03	37.28	0.08	0.06
26KX49		37.38	0.15	0.11	37.92	0.72	0.53
2BBDTF		37.36	0.13	0.10	37.68	0.48	0.35
3AC8NB		36.92	-0.31	-0.23	36.82	-0.38	-0.28
3TQ2FF		36.20	-1.03	-0.77	36.33	-0.87	-0.64
3ZEXNG		35.96	-1.27	-0.95	35.22	-1.98	-1.45
4PM7BN		37.45	0.22	0.17	36.60	-0.60	-0.44
7TK66D		37.38	0.15	0.11	37.07	-0.13	-0.10
9TRB3Q		36.76	-0.47	-0.35	36.80	-0.41	-0.30
9TTZGV		38.04	0.81	0.60	37.25	0.04	0.03
AEMJPK		38.00	0.77	0.58	37.71	0.51	0.37
BG9HTG		39.48	2.25	1.69	39.56	2.36	1.73
C8YHH7		37.12	-0.11	-0.08	37.11	-0.09	-0.07
CN7LZQ		36.54	-0.69	-0.52	36.79	-0.41	-0.30
CYM7L9	X	39.45	2.22	1.67	40.90	3.70	2.71
DBHV29		38.16	0.93	0.70	38.06	0.86	0.63
DLD4JB		39.80	2.57	1.93	39.57	2.37	1.73
GG9NCX	M	No data reported for this sample			38.89	1.68	1.23
HRBABA		37.09	-0.14	-0.10	36.55	-0.65	-0.47
JPK2Z		37.09	-0.14	-0.10	37.19	-0.02	-0.01
JNHPU4		34.42	-2.81	-2.10	34.51	-2.69	-1.97
JYHB23		36.59	-0.64	-0.48	36.68	-0.53	-0.39
K7FA6W		37.43	0.20	0.15	37.54	0.34	0.25
K7MC2W		34.32	-2.91	-2.18	34.43	-2.77	-2.03
LAD8VF		37.26	0.03	0.02	37.46	0.26	0.19
LFKURP		37.87	0.64	0.48	38.42	1.22	0.89
LXVCGV		37.54	0.31	0.23	37.32	0.12	0.09
M6CLJ4		38.46	1.23	0.92	38.30	1.10	0.80
MT3T8Q		35.33	-1.90	-1.43	35.16	-2.05	-1.50
MXBQLJ	*	36.72	-0.51	-0.38	37.65	0.45	0.33
NLHA8N		36.65	-0.58	-0.43	37.09	-0.12	-0.09
P4D3RL		38.22	0.99	0.74	38.14	0.94	0.69
P7J2RF		38.66	1.43	1.07	38.42	1.22	0.89
P7ZNG3		37.10	-0.13	-0.10	37.25	0.04	0.03
P977EY		38.54	1.31	0.98	38.32	1.12	0.82



Plastics Interlaboratory Testing Program

Report #123

Analysis 737

3rd Qtr 2022

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K85			Sample K86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PCATG3		36.67	-0.56	-0.42	36.77	-0.43	-0.32
PXR64Y		35.73	-1.50	-1.12	35.66	-1.54	-1.13
QE73HV		34.52	-2.71	-2.03	34.28	-2.92	-2.14
QTP8UD		38.55	1.32	0.99	38.63	1.43	1.04
RBPVX3		36.95	-0.28	-0.21	36.92	-0.28	-0.20
YDQFJE	*	41.15	3.92	2.94	41.35	4.15	3.04
ZA2GPG		37.55	0.32	0.24	37.55	0.34	0.25
ZDP2QE		36.56	-0.67	-0.50	36.30	-0.90	-0.66
ZZZU2Q		36.92	-0.31	-0.23	36.86	-0.34	-0.25

Summary Statistics		
	Sample K85	Sample K86
Grand Means	37.229 MPa	37.202 MPa
Stnd Dev Btwn Labs	1.334 MPa	1.366 MPa
Statistics based on 42 of 44 reporting participants		

Sample K85: HIPS & Sample K86: HIPS

Comments on Assigned Data Flags for Test #737

CYM7L9 (X) - Data for sample K86 are high.

GG9NCX (M) - Participant did not submit data for sample K85.



Plastics Interlaboratory Testing Program

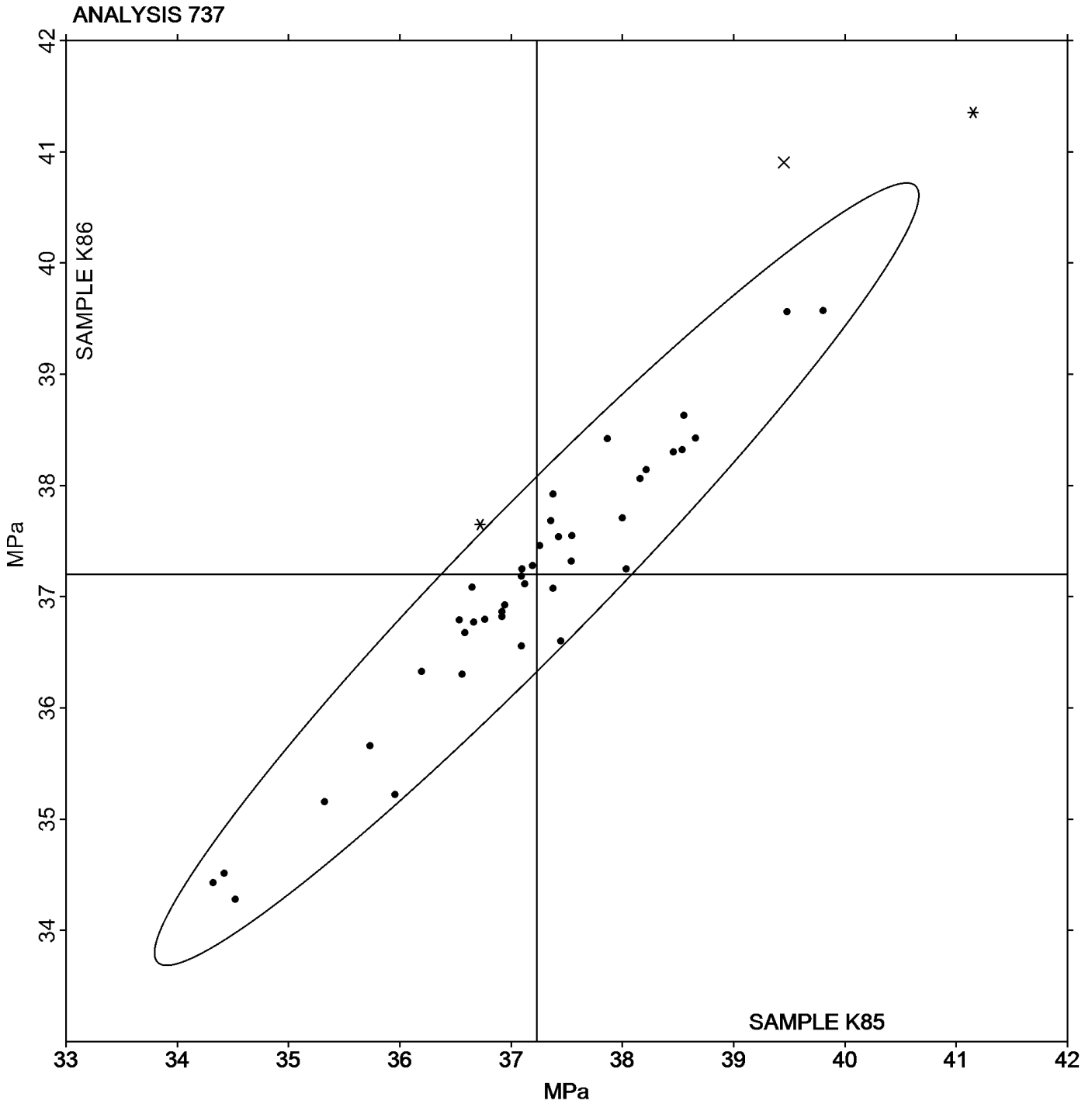
Analysis 737

Flexural Stress at 3.5% Strain - MPa

Report #123

3rd Qtr 2022

Grand Mean Sample K85: 37.229 MPa Grand Mean Sample K86: 37.202 MPa





Plastics Interlaboratory Testing Program

Report #123

Analysis 738

3rd Qtr 2022

Flexural Stress at Yield - MPa

WebCode	Data Flag	Sample K85			Sample K86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24FMRJ		37.31	-0.06	-0.04	37.42	-0.01	-0.01
26KX49	X	2,055.25	2,017.88	1,366.77	2,070.30	2,032.86	1,350.91
2BBDTF		37.56	0.19	0.13	37.78	0.35	0.23
3AC8NB		37.24	-0.13	-0.09	37.66	0.23	0.15
7TK66D		37.72	0.35	0.24	37.52	0.08	0.06
8GJ86H		37.98	0.61	0.41	38.08	0.65	0.43
9G2EBZ		37.24	-0.13	-0.09	37.10	-0.33	-0.22
9TRB3Q		37.12	-0.25	-0.17	37.18	-0.25	-0.17
AEMJPK		38.53	1.15	0.78	38.31	0.87	0.58
BG9HTG		40.22	2.85	1.93	40.66	3.23	2.14
C8YHH7		37.26	-0.11	-0.08	37.32	-0.11	-0.08
CYM7L9	X	39.69	2.32	1.57	41.19	3.76	2.50
DBHV29		38.29	0.91	0.62	38.16	0.73	0.49
DLD4JB		40.50	3.13	2.12	40.34	2.91	1.93
GG9NCX	X	30.75	-6.62	-4.48	30.78	-6.66	-4.42
HRBABA		37.28	-0.09	-0.06	37.12	-0.31	-0.21
JPK2Z		37.12	-0.25	-0.17	37.20	-0.23	-0.16
JNHPU4		34.44	-2.94	-1.99	34.53	-2.90	-1.93
JYHB23		36.84	-0.53	-0.36	37.40	-0.04	-0.02
K7MC2W		34.42	-2.95	-2.00	34.54	-2.90	-1.93
K8TWMC		37.36	-0.01	-0.01	37.68	0.25	0.16
LAD8VF		37.44	0.07	0.04	37.72	0.29	0.19
LXVCGV		37.62	0.25	0.17	37.42	-0.01	-0.01
MT3T8Q		35.53	-1.84	-1.25	35.38	-2.05	-1.36
MXBQLJ	X	36.57	-0.81	-0.55	37.64	0.20	0.13
NLHA8N		36.63	-0.74	-0.50	37.14	-0.29	-0.19
P4D3RL		38.30	0.93	0.63	38.27	0.83	0.55
P7J2RF		38.87	1.49	1.01	38.49	1.06	0.70
P7ZNG3		37.16	-0.21	-0.14	37.32	-0.11	-0.07
PCATG3		36.82	-0.55	-0.37	36.88	-0.56	-0.37
PV6HDW		37.16	-0.22	-0.15	37.74	0.31	0.21
PXR64Y		36.21	-1.17	-0.79	36.12	-1.31	-0.87
QE73HV		34.52	-2.85	-1.93	34.28	-3.15	-2.10
RBPVX3		36.93	-0.44	-0.30	36.94	-0.50	-0.33
YDQFJE	*	41.24	3.87	2.62	41.46	4.03	2.68



Plastics Interlaboratory Testing Program

Report #123

Analysis 738

3rd Qtr 2022

Flexural Stress at Yield - MPa

WebCode	Data Flag	<u>Sample K85</u>			<u>Sample K86</u>		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ZA2GPG		38.23	0.85	0.58	38.26	0.83	0.55
ZDP2QE		36.68	-0.69	-0.47	36.43	-1.00	-0.67
ZZZU2Q		36.95	-0.42	-0.29	36.89	-0.54	-0.36

Summary Statistics		<u>Sample K85</u>	<u>Sample K86</u>
Grand Means		37.375 MPa	37.434 MPa
Std Dev Btwn Labs		1.476 MPa	1.505 MPa
Statistics based on 34 of 38 reporting participants			

Sample K85: HIPS & Sample K86: HIPS

Comments on Assigned Data Flags for Test #738

- CYM7L9 (X) - Inconsistent in testing between samples.
- GG9NCX (X) - Data for both samples are low. Possible Systematic Error.
- MXBQLJ (X) - Inconsistent in testing between samples.
- 26KX49 (X) - Extreme data.



Plastics Interlaboratory Testing Program

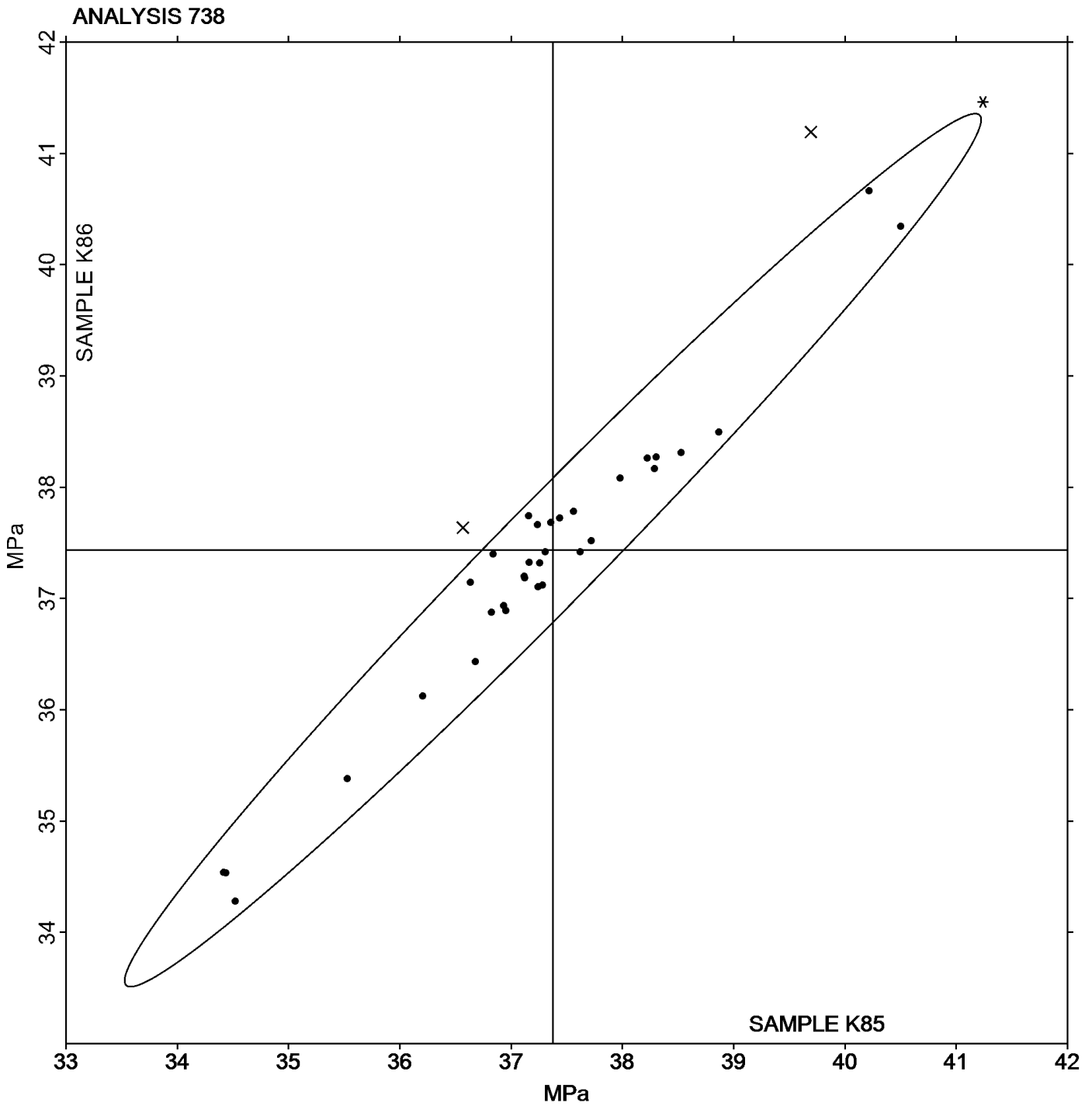
Analysis 738

Flexural Stress at Yield - MPa

Report #123

3rd Qtr 2022

Grand Mean Sample K85: 37.375 MPa Grand Mean Sample K86: 37.434 MPa





Plastics Interlaboratory Testing Program

Report #123

Analysis 750

3rd Qtr 2022

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X85			Sample X86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BBDTF		6.76	0.13	0.50	6.77	0.16	0.66	DY
2BCNN4	X	6.06	-0.56	-2.16	6.61	0.00	0.00	CE
39A3HH		6.56	-0.07	-0.27	6.53	-0.08	-0.33	CE
3AC8NB		6.54	-0.09	-0.35	6.69	0.08	0.33	GO
3AJ8TL		6.45	-0.18	-0.67	6.45	-0.16	-0.67	TO
3BT3TR	*	6.98	0.35	1.36	7.12	0.50	2.08	TO
3E9MHT		7.07	0.45	1.71	6.92	0.31	1.28	TO
3MAU8U		6.75	0.12	0.48	6.80	0.19	0.78	TO
3MRTGK		6.87	0.24	0.94	6.68	0.07	0.28	DY
3NG48D		6.95	0.32	1.25	6.90	0.29	1.19	TO
3TQ2FF		6.73	0.10	0.40	6.72	0.11	0.45	XX
3ZEXNG	X	2.18	-4.44	-17.02	1.93	-4.68	-19.33	DY
42Z9UZ		6.20	-0.43	-1.63	6.30	-0.31	-1.29	KA
63QVJA		6.52	-0.11	-0.40	6.54	-0.07	-0.29	TO
6AMQLD	X	18.73	12.10	46.37	18.68	12.06	49.84	GO
6YP8A9	*	6.03	-0.60	-2.28	5.93	-0.68	-2.81	TO
7CXYGK		6.69	0.06	0.25	6.74	0.12	0.51	WZ
7TK66D		6.70	0.07	0.29	6.60	-0.01	-0.05	WZ
8AME7P		6.47	-0.16	-0.59	6.40	-0.21	-0.87	TO
8C6M6N		6.49	-0.14	-0.54	6.42	-0.19	-0.79	TO
8F7NBD		7.01	0.39	1.48	6.91	0.30	1.25	TO
8GJ86H	X	12.95	6.32	24.24	12.95	6.34	26.19	TO
8R4CJA		6.64	0.01	0.04	6.57	-0.04	-0.17	TO
8Z3V4D		6.70	0.07	0.29	6.60	-0.01	-0.05	TO
9RH8QM		6.66	0.03	0.11	6.67	0.05	0.22	CE
AEMJPK		6.33	-0.30	-1.15	6.39	-0.22	-0.91	WZ
AGX8PJ		6.71	0.08	0.31	6.54	-0.08	-0.31	TO
AKVUU8		6.66	0.03	0.11	6.65	0.03	0.14	TO
AL3A4Y		6.66	0.03	0.13	6.72	0.10	0.43	TO
BG9HTG		6.20	-0.43	-1.63	6.25	-0.36	-1.49	WZ
C3LPHE	X	5.67	-0.96	-3.68	5.83	-0.78	-3.23	TO
C8YHH7		6.76	0.13	0.50	6.76	0.15	0.62	GO
C9PTAY		6.83	0.20	0.77	6.63	0.01	0.06	XX
CR46Z4		6.77	0.14	0.56	6.76	0.14	0.59	XX
CYM7L9		6.80	0.17	0.67	6.65	0.04	0.16	AT



Plastics Interlaboratory Testing Program

Report #123

Analysis 750

3rd Qtr 2022

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X85			Sample X86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
DBHV29	*	6.07	-0.55	-2.11	6.28	-0.33	-1.37	TO
EAHE2G	X	7.30	0.67	2.59	6.92	0.30	1.26	XX
EGX6GF	X	16.95	10.32	39.57	17.30	10.68	44.14	TO
EPCLFH	X	7.34	0.71	2.72	7.00	0.38	1.59	TO
ER2ZXZ	X	16.43	9.80	37.55	16.64	10.02	41.41	TO
FBKZ99	X	6.30	-0.33	-1.25	6.60	-0.01	-0.05	TO
FHMTBV		6.50	-0.13	-0.48	6.45	-0.16	-0.67	TO
FQ2EN7	X	6.56	-0.07	-0.25	5.57	-1.04	-4.30	XX
FRJAJE		6.20	-0.42	-1.61	6.24	-0.37	-1.51	QT
GA874D		6.99	0.36	1.40	6.89	0.28	1.15	AT
GG9NCX		6.76	0.13	0.50	6.78	0.17	0.70	TO
HRBABA	X	6.01	-0.62	-2.38	6.72	0.11	0.45	DY
JGNHF6	X	13.34	6.71	25.72	13.21	6.60	27.28	CE
JPK2Z		6.37	-0.26	-0.99	6.54	-0.07	-0.30	TY
JNHPU4		6.66	0.04	0.14	6.64	0.03	0.14	DY
JYHB23		6.80	0.17	0.67	6.80	0.19	0.78	TO
K7G9Y6	X	7.92	1.30	4.97	9.11	2.50	10.33	XX
K7MC2W	X	12.70	6.07	23.28	15.55	8.94	36.93	WZ
K8BZ6A	*	7.29	0.67	2.55	7.24	0.63	2.61	XX
K8TWMC		6.15	-0.48	-1.82	6.25	-0.36	-1.49	TO
LAV83C	X	6.22	-0.41	-1.57	6.55	-0.06	-0.25	TO
LFKURP		6.61	-0.02	-0.08	6.57	-0.04	-0.17	DY
LFY3WJ		6.72	0.09	0.36	6.75	0.14	0.59	TO
LKFC4W		6.39	-0.23	-0.88	6.56	-0.05	-0.21	TO
LVF797		6.58	-0.05	-0.17	6.67	0.06	0.24	TO
LVRVJ7		6.17	-0.45	-1.74	6.17	-0.44	-1.82	TM
LXVCGV		6.20	-0.43	-1.63	6.20	-0.41	-1.70	DA
M6CLJ4		6.77	0.14	0.54	6.77	0.15	0.64	DY
MKW2TU	X	7.03	0.40	1.53	6.56	-0.06	-0.23	TO
MT3T8Q		6.38	-0.25	-0.94	6.29	-0.33	-1.35	CE
NR3C9Y		6.50	-0.13	-0.50	6.33	-0.28	-1.16	TO
P7J2RF		6.56	-0.07	-0.25	6.58	-0.03	-0.13	WZ
P977EY		6.67	0.04	0.15	6.64	0.02	0.10	XX
PCATG3		6.55	-0.08	-0.29	6.66	0.05	0.20	TO
PM3KER		6.79	0.16	0.61	6.84	0.23	0.95	TO



Plastics Interlaboratory Testing Program

Report #123

Analysis 750

3rd Qtr 2022

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X85			Sample X86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
PV6HDW	*	7.23	0.60	2.30	7.22	0.61	2.52	TO
PXR64Y		6.80	0.17	0.67	6.70	0.09	0.37	KA
QE73HV	X	9.80	3.17	12.15	9.64	3.02	12.49	TO
QM9YV2		6.80	0.17	0.67	6.70	0.09	0.37	TO
QTP8UD		6.85	0.22	0.86	6.86	0.25	1.03	DY
QYVCN3		6.70	0.07	0.29	6.65	0.04	0.16	CE
RT4EQY		6.61	-0.02	-0.08	6.61	0.00	0.00	TO
RT9TYT	X	4.37	-2.25	-8.63	4.36	-2.25	-9.31	KA
TW384U	X	10.10	3.47	13.32	10.20	3.59	14.83	XX
UKKUFY		6.89	0.26	1.00	6.77	0.15	0.64	TO
UNRYHM		6.30	-0.33	-1.25	6.20	-0.41	-1.70	TY
VK6WWY		6.79	0.16	0.61	6.73	0.11	0.47	TO
VLRMQC		6.55	-0.08	-0.29	6.50	-0.11	-0.46	DY
VPE9HE		7.08	0.45	1.74	6.99	0.38	1.57	TO
X6DGGJ		6.89	0.26	1.02	6.83	0.22	0.90	WZ
X7BDXL		6.50	-0.13	-0.49	6.54	-0.07	-0.28	TO
Y7AVJN		6.58	-0.05	-0.19	6.51	-0.10	-0.42	DY
YDQFJE		6.60	-0.03	-0.10	6.62	0.01	0.04	TO
YUZZKR		6.51	-0.12	-0.46	6.34	-0.28	-1.14	RR
YXZBFR	X	16.30	9.67	37.06	16.01	9.39	38.81	TO
ZA2GPG		6.63	0.00	0.02	6.67	0.05	0.22	GO
ZDP2QE		6.34	-0.29	-1.11	6.51	-0.10	-0.42	DY
ZMA8MH		6.62	-0.01	-0.03	6.66	0.05	0.21	CE
ZZZU2Q		6.30	-0.33	-1.25	6.30	-0.31	-1.29	TO

Summary Statistics		
	Sample X85	Sample X86
Grand Means	6.625 grams/10 mins	6.611 grams/10 mins
Std Dev Btwn Labs	0.261 grams/10 mins	0.242 grams/10 mins
Statistics based on 73 of 94 reporting participants		

Sample X85: LDPE & Sample X86: LDPE



Plastics Interlaboratory Testing Program

Report #123

Analysis 750

3rd Qtr 2022

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

Comments on Assigned Data Flags for Test #750

- HRBABA (X) - Inconsistent in testing between samples.
- LAV83C (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample X85.
- 3ZEXNG (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample X86.
- K7MC2W (X) - Extreme data.
- MKW2TU (X) - Inconsistent in testing between samples.
- JGNHF6 (X) - Extreme data.
- EAHE2G (X) - Inconsistent in testing between samples.
- 2BCNN4 (X) - Inconsistent in testing between samples.
- QE73HV (X) - Data for both samples are high.
- RT9TYT (X) - Data for both samples are low. Possible Systematic Error.
- FQ2EN7 (X) - Data for sample X86 are low.
- 6AMQLD (X) - Extreme data.
- TW384U (X) - Data for both samples are high.
- EPCLFH (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample X85.
- ER2ZXZ (X) - Extreme data.
- C3LPHE (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 8GJ86H (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample X85.
- K7G9Y6 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample X85.
- YXZBFR (X) - Extreme data.
- EGX6GF (X) - Extreme data.
- FBKZ99 (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample X85			Sample X86			Labs Incl / Rpt
	LDPE			LDPE			
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Procedure A of ASTM D1238	6.627	0.270	0.002	6.603	0.260	-0.008	38/47
Procedure B of ASTM D1238	6.646	0.297	0.021	6.620	0.281	0.009	13/17
Procedure A of ISO 1133	6.629	0.262	0.003	6.617	0.220	0.006	16/22
Procedure B of ISO 1133	6.514	0.082	-0.112	6.600	0.072	-0.011	5/6



Plastics Interlaboratory Testing Program

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Analysis 750

3rd Qtr 2022

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
DA	Davenport	DY	Dynisco
GO	Gottfert	KA	Kayeness
QT	Qualitest	RR	Ray Ran
TM	TMI	TO	Tinius Olsen
TY	Toyoseiki Seisakusho	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

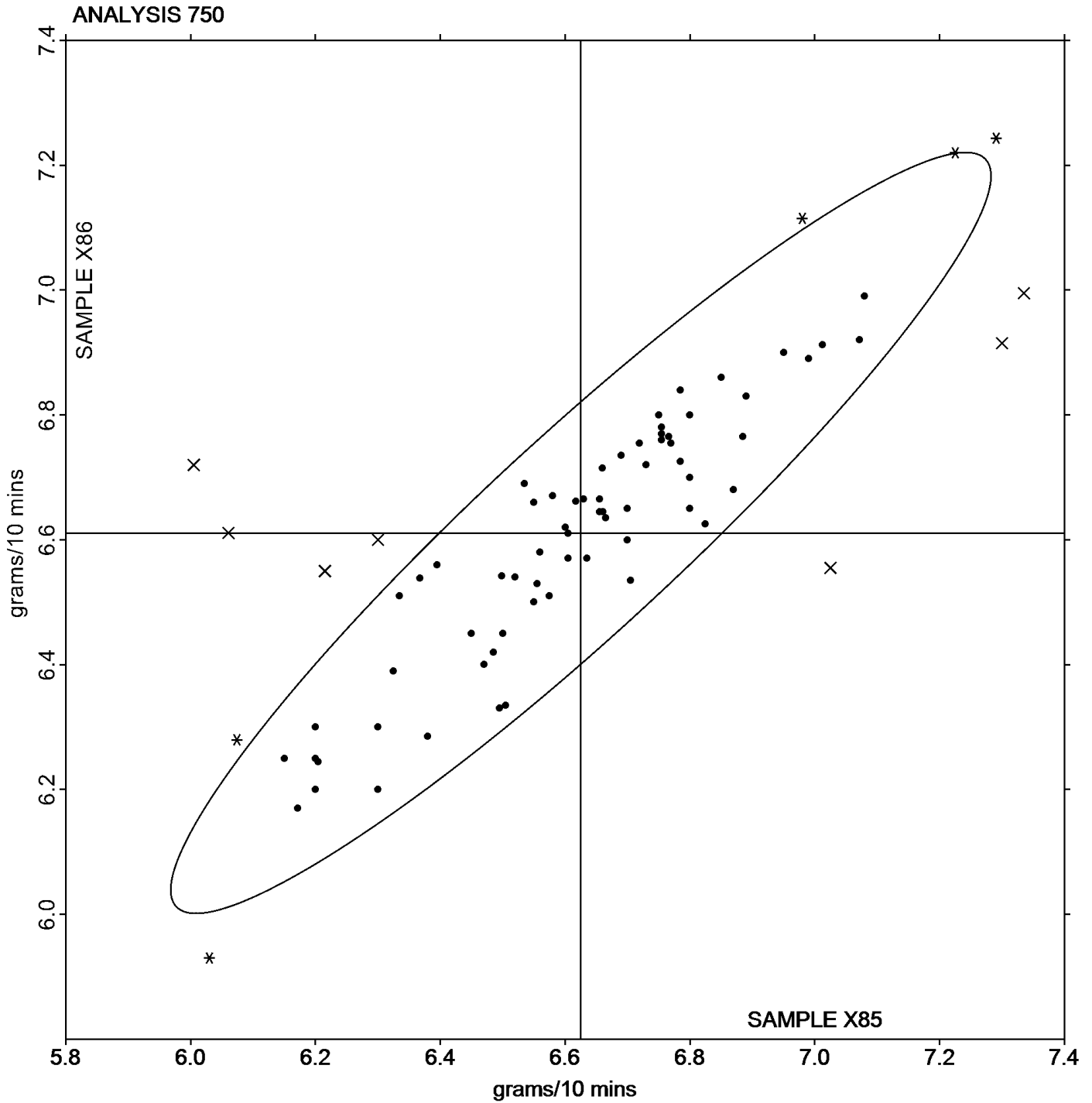
Report #123

Analysis 750

3rd Qtr 2022

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

Grand Mean Sample X85: 6.6251 grams/10 mins Grand Mean Sample X86: 6.6111 grams/10 mins





Plastics Interlaboratory Testing Program

Report #123

Analysis 755

3rd Qtr 2022

Moisture Content of Plastics

WebCode	Data Flag	Sample Y85			Sample Y86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26KX49		0.01300	-0.01100	-1.30	0.01600	-0.00917	-0.93	CT
2MQLQL		0.02000	-0.00400	-0.47	0.03700	0.01183	1.20	MU
39A3HH		0.02030	-0.00370	-0.44	0.01993	-0.00524	-0.53	MK
3E9MHT	*	0.04433	0.02033	2.40	0.05000	0.02483	2.51	CT
3MRTGK		0.02230	-0.00170	-0.20	0.01517	-0.01000	-1.01	AZ
7CXYGK		0.03250	0.00850	1.00	0.04300	0.01783	1.80	AZ
7TK66D		0.03650	0.01250	1.47	0.03450	0.00933	0.94	ML
8GKXF8		0.02000	-0.00400	-0.47	0.02033	-0.00484	-0.49	MJ
8Z3V4D		0.02267	-0.00134	-0.16	0.02333	-0.00184	-0.19	AZ
9JH48H		0.01967	-0.00434	-0.51	0.01967	-0.00550	-0.56	AZ
9TRB3Q		0.02900	0.00500	0.59	0.02667	0.00150	0.15	MU
AVEBME		0.01397	-0.01004	-1.18	0.01383	-0.01134	-1.15	ML
C3LPHE		0.02167	-0.00234	-0.28	0.02067	-0.00450	-0.45	XX
C8YHH7		0.03000	0.00600	0.71	0.03000	0.00483	0.49	MU
CFD8GE	X	0.09000	0.06600	7.78	0.06667	0.04150	4.19	MU
CN7LZQ		0.01133	-0.01267	-1.49	0.01167	-0.01350	-1.36	AZ
DBHV29		0.00793	-0.01607	-1.89	0.00730	-0.01787	-1.81	AZ
EAHE2G		0.02700	0.00300	0.35	0.04033	0.01516	1.53	CT
EPDLBB		0.03380	0.00980	1.16	0.02260	-0.00257	-0.26	MU
K7MC2W		0.01633	-0.00767	-0.90	0.02400	-0.00117	-0.12	MJ
LAD8VF	*	0.04167	0.01766	2.08	0.02700	0.00183	0.19	MU
LEAR7Q		0.02597	0.00196	0.23	0.03213	0.00696	0.70	ML
LFKURP		0.02323	-0.00077	-0.09	0.02363	-0.00154	-0.16	AZ
LFY3WJ		0.01987	-0.00414	-0.49	0.01987	-0.00530	-0.54	AQ
M44RPJ		0.02273	-0.00127	-0.15	0.01920	-0.00597	-0.60	XX
M6CLJ4		0.02000	-0.00400	-0.47	0.02000	-0.00517	-0.52	XX
MT3T8Q		0.02000	-0.00400	-0.47	0.02033	-0.00484	-0.49	MU
PXBW6W		0.02167	-0.00234	-0.28	0.02233	-0.00284	-0.29	MR
PXR64Y		0.01900	-0.00500	-0.59	0.02233	-0.00284	-0.29	MU
QE73HV		0.02100	-0.00300	-0.35	0.03800	0.01283	1.30	AZ
QQNKE9		0.02400	0.00000	0.00	0.02300	-0.00217	-0.22	CS
QTP8UD		0.02703	0.00303	0.36	0.02317	-0.00200	-0.20	XX
TW384U		0.02147	-0.00254	-0.30	0.02043	-0.00474	-0.48	MK
VLRMQC		0.02233	-0.00167	-0.20	0.02200	-0.00317	-0.32	AZ
WQG3JB		0.02950	0.00550	0.65	0.02450	-0.00067	-0.07	SB



Plastics Interlaboratory Testing Program

Report #123

Analysis 755

3rd Qtr 2022

Moisture Content of Plastics

WebCode	Data Flag	Sample Y85			Sample Y86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
WZUBPX		0.03100	0.00700	0.83	0.03700	0.01183	1.20	SB
X6DGGJ	*	0.04567	0.02166	2.55	0.05033	0.02516	2.54	BA
YUZZKR		0.01800	-0.00600	-0.71	0.01847	-0.00670	-0.68	CT
ZZZU2Q		0.01567	-0.00834	-0.98	0.01667	-0.00850	-0.86	MU

Summary Statistics

	Sample Y85	Sample Y86
Grand Means	0.024003 Percent	0.025168 Percent
Stnd Dev Btwn Labs	0.008480 Percent	0.009898 Percent
Statistics based on 38 of 39 reporting participants		

Sample Y85: HIPS & Sample Y86: HIPS

Comments on Assigned Data Flags for Test #755

CFD8GE (X) - Data for both samples are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample Y85 HIPS			Sample Y86 HIPS			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D6869	0.022414	0.007845	-0.0016	0.024958	0.008523	-0.0002	12/13
ISO 15512 Method B	0.027122	0.006991	0.0031	0.024411	0.005483	-0.0008	6/6
ASTM D6980	0.025157	0.008621	0.0012	0.029610	0.011249	0.0044	10/10
ASTM D7191	0.017317	0.006165	-0.0067	0.016189	0.005969	-0.0090	6/6

Key to Instrument Codes Reported by Participants

AQ Aquastar	AZ Arizona Instruments Moisture Analyzer
BA Brabender Aquatrac	CS Cosa Instruments
CT Computrac Moisture Analyzer	MJ Mitsubishi KF Analyzer Series
MK Mitsubishi KF Analyzer CA	ML Metrohm Coulometer
MR Metrohm Coulineter 756 KF	MU Mettler Toledo
SB Sartorius Mark 3	XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

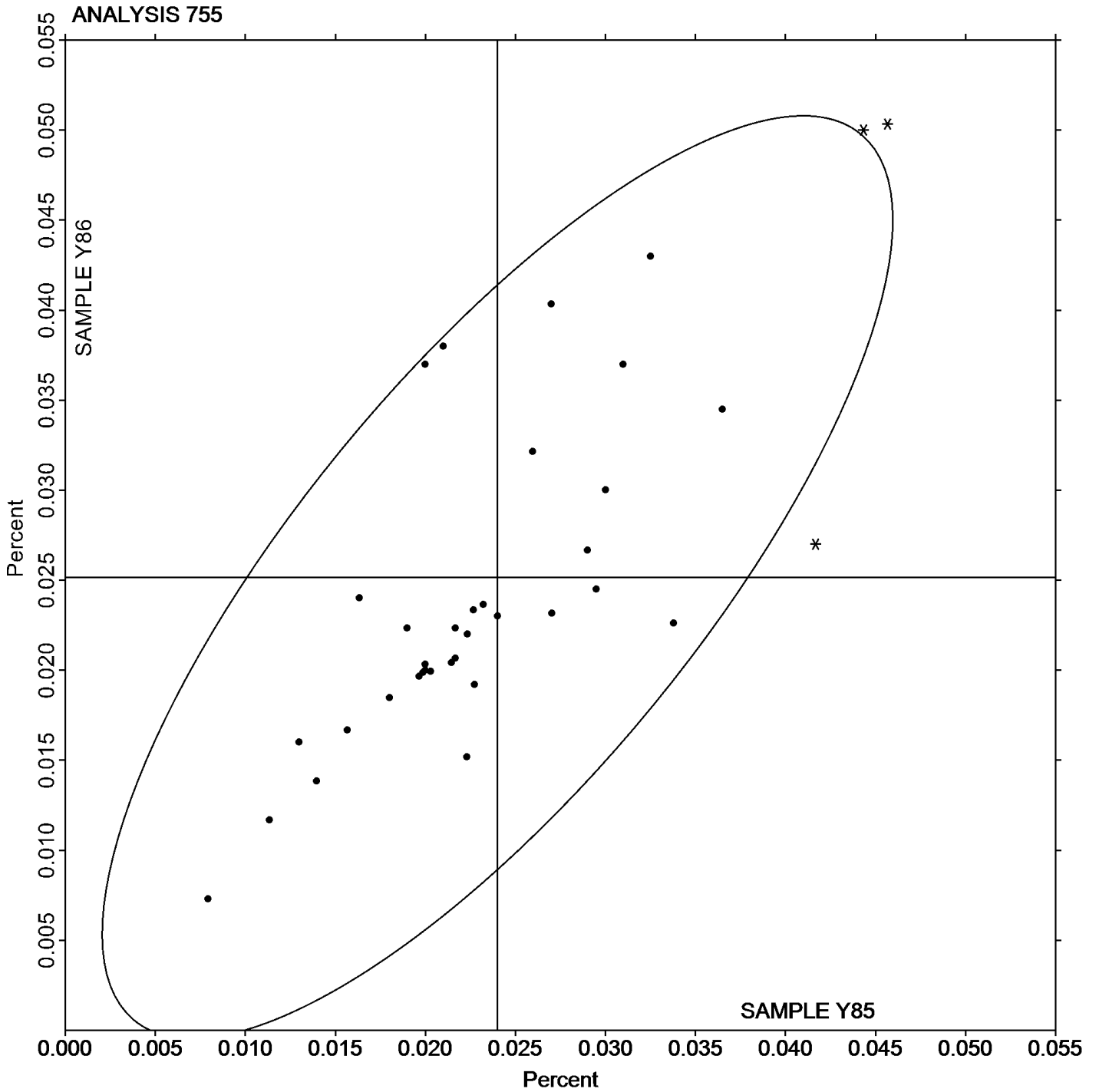
Analysis 755

Moisture Content of Plastics

Report #123

3rd Qtr 2022

Grand Mean Sample Y85: 0.02400 Percent Grand Mean Sample Y86: 0.02517 Percent





Plastics Interlaboratory Testing Program

Report #123

Analysis 757

3rd Qtr 2022

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L85			Sample L86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26KX49		20.775	0.078	0.95	20.765	0.070	1.12
39A3HH		20.670	-0.027	-0.33	20.695	0.000	0.00
3AC8NB	X	19.870	-0.827	-10.08	20.045	-0.650	-10.40
3E9MHT		20.600	-0.097	-1.18	20.660	-0.035	-0.56
3NG48D		20.615	-0.082	-1.00	20.745	0.050	0.80
3TQ2FF	X	20.650	-0.047	-0.57	20.220	-0.475	-7.60
3UMVEP		20.690	-0.007	-0.08	20.705	0.010	0.16
4PM7BN		20.670	-0.027	-0.33	20.620	-0.075	-1.20
4ZMJMG		20.735	0.038	0.46	20.728	0.033	0.53
6ZNQBV		20.645	-0.052	-0.63	20.660	-0.035	-0.56
7TK66D		20.655	-0.042	-0.51	20.660	-0.035	-0.56
8F7NBD	X	20.490	-0.207	-2.53	20.708	0.013	0.21
8Z3V4D		20.715	0.018	0.22	20.740	0.045	0.72
9G2EBZ		20.675	-0.022	-0.27	20.660	-0.035	-0.56
9RH8QM		20.825	0.128	1.56	20.700	0.005	0.08
AEMJPK		20.580	-0.117	-1.43	20.615	-0.080	-1.28
C3LPHE		20.610	-0.087	-1.06	20.590	-0.105	-1.68
C8YHH7		20.720	0.023	0.28	20.750	0.055	0.88
C9PTAY		20.875	0.178	2.17	20.840	0.145	2.32
CN7LZQ	X	20.385	-0.312	-3.80	20.430	-0.265	-4.24
EAHE2G		20.607	-0.090	-1.10	20.663	-0.032	-0.51
EGX6GF	X	19.400	-1.297	-15.81	19.750	-0.945	-15.12
EPDLBB		20.803	0.106	1.29	20.800	0.105	1.68
F8RFGQ		20.770	0.073	0.89	20.685	-0.010	-0.16
FQ2EN7	*	20.455	-0.242	-2.95	20.600	-0.095	-1.52
GG9NCX		20.680	-0.017	-0.21	20.762	0.068	1.08
GPJPXX		20.760	0.063	0.77	20.725	0.030	0.48
GW6X4A		20.775	0.078	0.95	20.700	0.005	0.08
HRBABA		20.880	0.183	2.23	20.765	0.070	1.12
K7MC2W		20.570	-0.127	-1.55	20.615	-0.080	-1.28
K8BZ6A		20.657	-0.040	-0.49	20.692	-0.003	-0.05
LEAR7Q		20.725	0.028	0.34	20.765	0.070	1.12
LFKURP		20.715	0.018	0.22	20.695	0.000	0.00
LFY3WJ		20.660	-0.037	-0.45	20.680	-0.015	-0.24
M6CLJ4		20.735	0.038	0.46	20.670	-0.025	-0.40



Plastics Interlaboratory Testing Program

Report #123

Analysis 757

3rd Qtr 2022

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L85			Sample L86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MT3T8Q		20.695	-0.002	-0.02	20.660	-0.035	-0.56
PCATG3		20.845	0.148	1.81	20.785	0.090	1.44
PV6HDW		20.670	-0.027	-0.33	20.750	0.055	0.88
PXR64Y		20.720	0.023	0.28	20.655	-0.040	-0.64
QE73HV		20.580	-0.117	-1.43	20.620	-0.075	-1.20
QM9YV2		20.730	0.033	0.40	20.680	-0.015	-0.24
QRFF2G		20.725	0.028	0.34	20.720	0.025	0.40
QTP8UD		20.715	0.018	0.22	20.680	-0.015	-0.24
RBPVX3		20.745	0.048	0.59	20.715	0.020	0.32
VK6WWY		20.760	0.063	0.77	20.675	-0.020	-0.32
WC336Q		20.725	0.028	0.34	20.745	0.050	0.80
WZUBPX	X	20.330	-0.367	-4.47	20.410	-0.285	-4.56
X6DGGJ		20.605	-0.092	-1.12	20.545	-0.150	-2.40
YDQFJE		20.655	-0.042	-0.51	20.605	-0.090	-1.44
YW8D8K		20.635	-0.062	-0.76	20.625	-0.070	-1.12
ZA2GPG		20.695	-0.002	-0.02	20.735	0.040	0.64
ZAMX3Y		20.705	0.008	0.10	20.710	0.015	0.24
ZZZU2Q		20.705	0.008	0.10	20.805	0.110	1.76

Summary Statistics		
	Sample L85	Sample L86
Grand Means	20.6969 Percent	20.6949 Percent
Std Dev Btwn Labs	0.0820 Percent	0.0625 Percent
Statistics based on 47 of 53 reporting participants		

Sample L85: PP & Sample L86: PP

Comments on Assigned Data Flags for Test #757

- 8F7NBD (X) - Inconsistent in testing between samples.
- WZUBPX (X) - Data for both samples are low.
- 3AC8NB (X) - Data for both samples are low.
- EGX6GF (X) - Data for both samples are low. Inconsistent within the determinations of sample L86.
- CN7LZQ (X) - Data for both samples are low. Inconsistent within the determinations of sample L85.
- 3TQ2FF (X) - Data for sample L86 are low.



Plastics Interlaboratory Testing Program

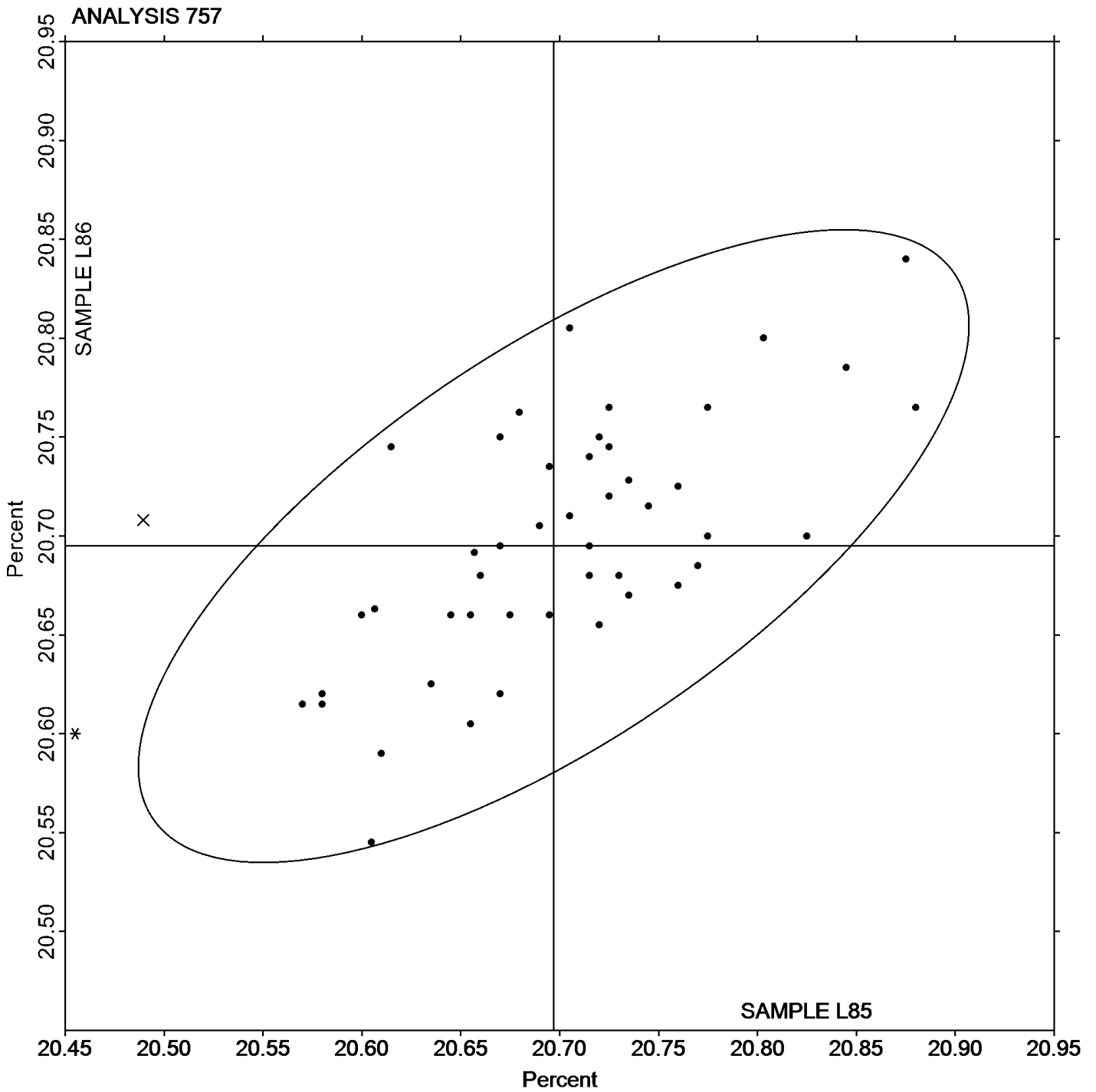
Analysis 757

Ash Content in Thermoplastics - Percent

Report #123

3rd Qtr 2022

Grand Mean Sample L85: 20.697 Percent Grand Mean Sample L86: 20.695 Percent





Plastics Interlaboratory Testing Program

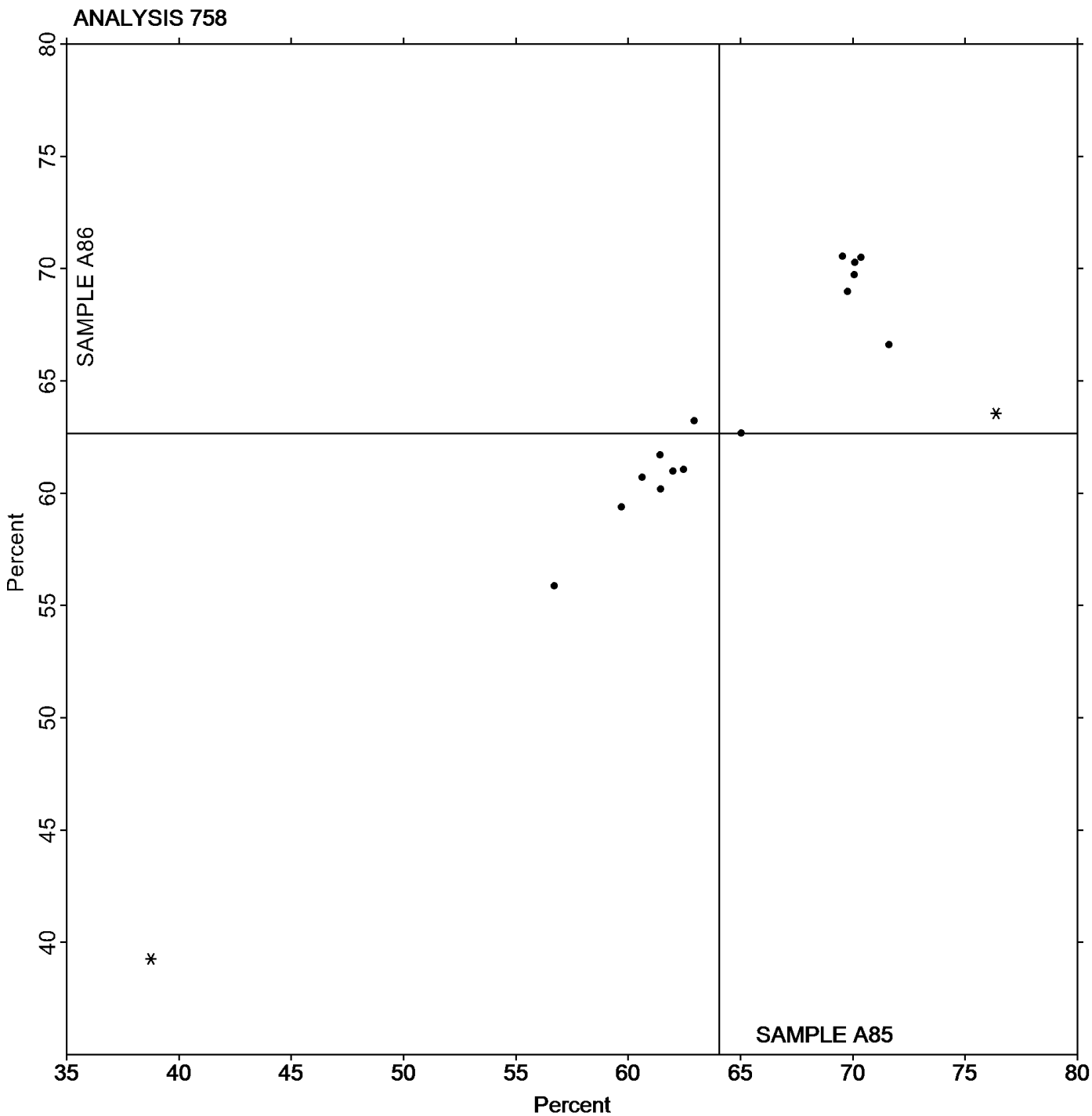
Analysis 758

Thermogravimetric Analysis

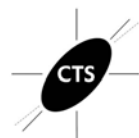
Report #123

3rd Qtr 2022

Grand Mean Sample A85: 64.058 Percent Grand Mean Sample A86: 62.656 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 760

3rd Qtr 2022

DSC Crystallization Temperature

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BBDTF		118.67	-1.88	-0.52	117.90	-2.67	-0.78	TA
3MAU8U		121.83	1.29	0.36	121.23	0.66	0.19	TA
3ZEXNG	X	112.30	-8.24	-2.28	110.56	-10.01	-2.91	TA
4PM7BN		120.00	-0.55	-0.15	120.53	-0.04	-0.01	TA
6B4MA8		117.00	-3.55	-0.98	117.50	-3.07	-0.89	NZ
8AME7P		126.43	5.89	1.63	126.13	5.56	1.62	TA
AEMJPK		119.70	-0.84	-0.23	120.06	-0.51	-0.15	TA
BG9HTG		118.36	-2.18	-0.60	118.56	-2.01	-0.59	TA
C3LPHE		120.60	0.05	0.01	120.67	0.10	0.03	NZ
C8YHH7		123.77	3.22	0.89	123.97	3.40	0.99	TA
CFD8GE	*	111.21	-9.34	-2.59	111.18	-9.39	-2.73	TA
EGX6GF		116.78	-3.77	-1.04	116.04	-4.53	-1.32	PE
EPCLFH		125.83	5.29	1.46	124.39	3.82	1.11	MT
EPDLBB		117.07	-3.48	-0.96	116.62	-3.95	-1.15	TA
FQ2EN7		118.90	-1.65	-0.46	119.19	-1.38	-0.40	TA
GDPLD6	*	127.10	6.56	1.82	125.50	4.93	1.44	TA
HCV7PE		119.43	-1.12	-0.31	120.47	-0.10	-0.03	TA
K8BZ6A	X	124.37	3.82	1.06	120.13	-0.44	-0.13	TA
LFKURP	X	119.03	-1.51	-0.42	122.13	1.56	0.45	TA
LXVCGV		121.30	0.75	0.21	121.37	0.80	0.23	TA
M6CLJ4		122.95	2.40	0.66	122.12	1.55	0.45	XX
MQDJ2V		118.38	-2.17	-0.60	118.29	-2.28	-0.66	TA
MT3T8Q		118.33	-2.21	-0.61	119.63	-0.94	-0.27	MT
NEF3PZ		118.97	-1.58	-0.44	119.57	-1.00	-0.29	TA
P4D3RL		117.24	-3.31	-0.92	117.89	-2.68	-0.78	XX
QB7W24		120.47	-0.08	-0.02	120.71	0.14	0.04	TA
QGHNK4		117.43	-3.11	-0.86	117.53	-3.04	-0.88	PE
TW384U		120.72	0.17	0.05	121.48	0.91	0.27	TA
UNRYHM		128.17	7.62	2.11	128.42	7.85	2.29	SH
WC336Q		120.50	-0.04	-0.01	121.00	0.43	0.13	TA
WXNYRW		123.27	2.73	0.76	123.23	2.66	0.77	TA
Y7AVJN		121.52	0.97	0.27	121.29	0.72	0.21	TA
ZDP2QE		124.47	3.92	1.09	124.61	4.04	1.18	TA



Plastics Interlaboratory Testing Program

Report #123

Analysis 760

3rd Qtr 2022

DSC Crystallization Temperature

Summary Statistics		
	<u>Sample W85</u>	<u>Sample W86</u>
Grand Means	120.547 Degrees Celsius	120.569 Degrees Celsius
Stnd Dev Btwn Labs	3.610 Degrees Celsius	3.435 Degrees Celsius
Statistics based on 30 of 33 reporting participants		

Sample W85: PP & Sample W86: PP

Comments on Assigned Data Flags for Test #760

K8BZ6A (X) - Inconsistent in testing between samples.

LFKURP (X) - Inconsistent in testing between samples.

3ZEXNG (X) - Data for sample W86 are low. Inconsistent within the determinations of sample W85.

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

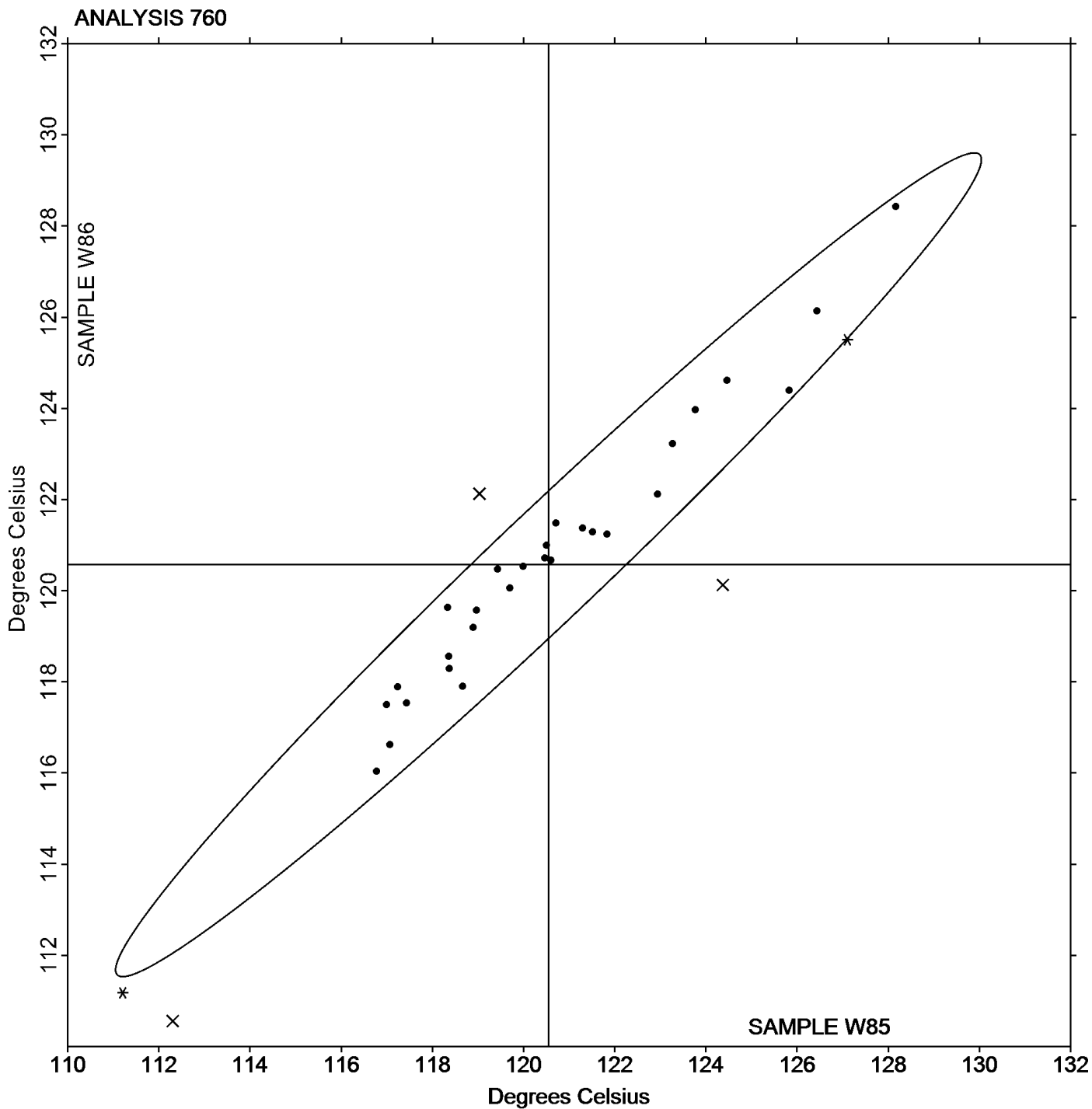
SH Shimadzu

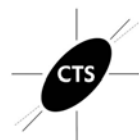
TA TA Instruments

XX Instrument manufacturer not specified by lab



Grand Mean Sample W85: 120.55 Degrees Celsius Grand Mean Sample W86: 120.57 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #123

Analysis 761

3rd Qtr 2022

DSC Melt Temperature

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BBDTF		163.03	-1.59	-0.84	163.58	-1.13	-0.63	TA
3MAU8U		162.90	-1.73	-0.91	163.60	-1.11	-0.62	TA
3ZEXNG		161.55	-3.08	-1.62	161.39	-3.32	-1.86	TA
4PM7BN		164.43	-0.19	-0.10	163.80	-0.91	-0.51	TA
6B4MA8		165.00	0.37	0.20	165.00	0.29	0.16	NZ
8AME7P		166.07	1.44	0.76	164.30	-0.41	-0.23	TA
8F7NBD		165.16	0.53	0.28	165.51	0.80	0.45	TA
8YLZ2H	*	163.08	-1.55	-0.82	165.57	0.86	0.48	TA
AEMJPK		163.34	-1.29	-0.68	163.39	-1.32	-0.74	TA
BG9HTG		163.88	-0.74	-0.39	163.83	-0.88	-0.49	TA
C3LPHE		167.77	3.14	1.65	167.57	2.86	1.59	NZ
C8YHH7		165.60	0.97	0.51	165.43	0.72	0.40	TA
CFD8GE		165.32	0.69	0.36	165.62	0.91	0.51	TA
EGX6GF		168.64	4.01	2.11	168.96	4.25	2.37	PE
EPCLFH		165.83	1.21	0.63	166.06	1.35	0.75	MT
EPDLBB		162.18	-2.45	-1.29	162.61	-2.10	-1.17	TA
GDPLD6		164.88	0.25	0.13	165.03	0.32	0.18	TA
HCV7PE	*	166.57	1.94	1.02	168.56	3.85	2.15	TA
LEAR7Q		167.52	2.89	1.52	165.63	0.92	0.51	TA
LFKURP		164.18	-0.44	-0.23	164.67	-0.04	-0.02	TA
LXVCGV		166.13	1.51	0.79	166.70	1.99	1.11	TA
M6CLJ4		164.70	0.07	0.04	164.78	0.07	0.04	XX
MQDJ2V		164.62	0.00	0.00	164.46	-0.25	-0.14	TA
MT3T8Q		167.70	3.07	1.61	165.70	0.99	0.55	MT
NEF3PZ		160.80	-3.83	-2.01	161.23	-3.48	-1.94	TA
P4D3RL		164.95	0.33	0.17	164.67	-0.04	-0.02	XX
QB7W24		165.80	1.17	0.62	165.53	0.82	0.46	TA
QGHNK4		165.73	1.11	0.58	165.53	0.82	0.46	PE
TW384U		165.04	0.41	0.22	165.13	0.42	0.24	TA
UNRYHM		164.54	-0.08	-0.04	164.79	0.08	0.04	SH
WC336Q		164.36	-0.26	-0.14	164.01	-0.70	-0.39	TA
WX4C68		161.10	-3.53	-1.85	160.80	-3.91	-2.18	TA
WXNYRW		162.71	-1.92	-1.01	163.34	-1.37	-0.76	TA
XHRXLP		166.00	1.37	0.72	166.30	1.59	0.89	NZ
Y7AVJN		161.55	-3.08	-1.62	162.47	-2.24	-1.25	XX



Plastics Interlaboratory Testing Program

Report #123

Analysis 761

3rd Qtr 2022

DSC Melt Temperature

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZDP2QE		163.92	-0.71	-0.37	164.04	-0.67	-0.37	TA

Summary Statistics

	Sample W85	Sample W86
Grand Means	164.627 Degrees Celsius	164.711 Degrees Celsius
Stnd Dev Btwn Labs	1.903 Degrees Celsius	1.792 Degrees Celsius

Statistics based on 36 of 36 reporting participants

Sample W85: PP & Sample W86: PP

Key to Instrument Codes Reported by Participants

MT	Mettler Toledo Instruments	NZ	Netzsch Instruments
PE	Perkins Elmer Instruments	SH	Shimadzu
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



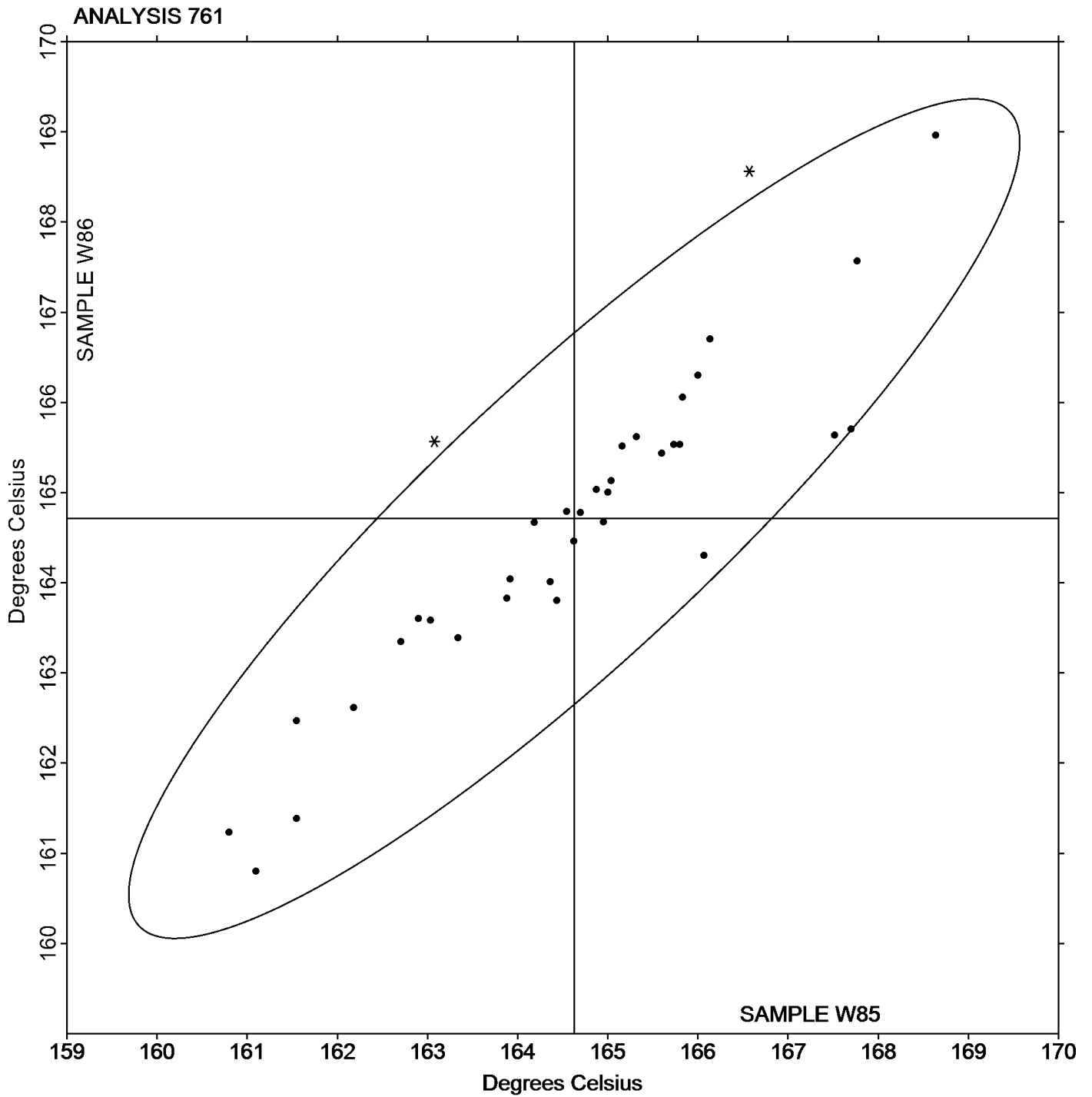
Plastics Interlaboratory Testing Program

Analysis 761
DSC Melt Temperature

Report #123

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Grand Mean Sample W85: 164.63 Degrees Celsius Grand Mean Sample W86: 164.71 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #123

Analysis 762

3rd Qtr 2022

DSC Enthalpy of Crystallization

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BBDTF	*	73.54	-29.51	-2.83	74.10	-29.47	-2.97	TA
3MAU8U		116.75	13.69	1.31	113.58	10.01	1.01	TA
3ZEXNG		93.32	-9.74	-0.93	91.55	-12.02	-1.21	TA
4PM7BN		102.48	-0.58	-0.06	102.40	-1.17	-0.12	TA
6B4MA8	X	120.65	17.59	1.69	136.85	33.28	3.35	NZ
8AME7P		109.37	6.31	0.60	107.33	3.76	0.38	TA
AEMJPK		106.90	3.84	0.37	107.37	3.80	0.38	TA
BG9HTG		112.70	9.64	0.92	113.43	9.86	0.99	TA
C3LPHE		103.43	0.38	0.04	103.43	-0.14	-0.01	NZ
C8YHH7		108.37	5.31	0.51	109.53	5.96	0.60	TA
CFD8GE		95.75	-7.30	-0.70	96.14	-7.43	-0.75	TA
EGX6GF		93.48	-9.58	-0.92	94.88	-8.69	-0.88	PE
EPDLBB		98.69	-4.37	-0.42	98.05	-5.52	-0.56	TA
GDPLD6		102.62	-0.44	-0.04	101.33	-2.24	-0.23	TA
HCV7PE		100.61	-2.44	-0.23	100.93	-2.64	-0.27	TA
LFKURP		101.37	-1.68	-0.16	106.30	2.73	0.28	TA
LXVCGV		120.23	17.18	1.65	121.03	17.46	1.76	XX
M6CLJ4		103.03	-0.03	0.00	101.91	-1.66	-0.17	XX
MQDJ2V		99.21	-3.85	-0.37	99.45	-4.12	-0.42	TA
MT3T8Q	*	106.94	3.89	0.37	113.36	9.79	0.99	MT
NEF3PZ	*	130.87	27.81	2.67	127.73	24.16	2.43	TA
P4D3RL		94.45	-8.61	-0.83	97.13	-6.44	-0.65	XX
QB7W24		107.07	4.01	0.38	107.23	3.66	0.37	TA
QGHNK4		94.02	-9.04	-0.87	100.41	-3.16	-0.32	PE
TW384U		98.60	-4.46	-0.43	98.18	-5.39	-0.54	TA
UNRYHM	X	78.47	-24.59	-2.36	71.07	-32.50	-3.27	SH
WC336Q		94.37	-8.69	-0.83	97.86	-5.71	-0.58	TA
WXNYRW		102.13	-0.92	-0.09	101.83	-1.74	-0.17	TA
Y7AVJN		104.03	0.98	0.09	101.73	-1.84	-0.18	XX
ZDP2QE		111.27	8.21	0.79	111.70	8.13	0.82	TA



Plastics Interlaboratory Testing Program

Report #123

Analysis 762

3rd Qtr 2022

DSC Enthalpy of Crystallization

Summary Statistics		
	<u>Sample W85</u>	<u>Sample W86</u>
Grand Means	103.057 Joules Per Gram	103.569 Joules Per Gram
Stnd Dev Btwn Labs	10.431 Joules Per Gram	9.925 Joules Per Gram
Statistics based on 28 of 30 reporting participants		

Sample W85: PP & Sample W86: PP

Comments on Assigned Data Flags for Test #762

UNRYHM (X) - Data for sample W86 are low. Inconsistent within the determinations of sample W86.

6B4MA8 (X) - Data for sample W86 are high. Inconsistent within the determinations of sample W86.

Key to Instrument Codes Reported by Participants

- | | | | |
|----|----------------------------|----|--|
| MT | Mettler Toledo Instruments | NZ | Netzsch Instruments |
| PE | Perkins Elmer Instruments | SH | Shimadzu |
| TA | TA Instruments | XX | Instrument manufacturer not specified by lab |



Plastics Interlaboratory Testing Program

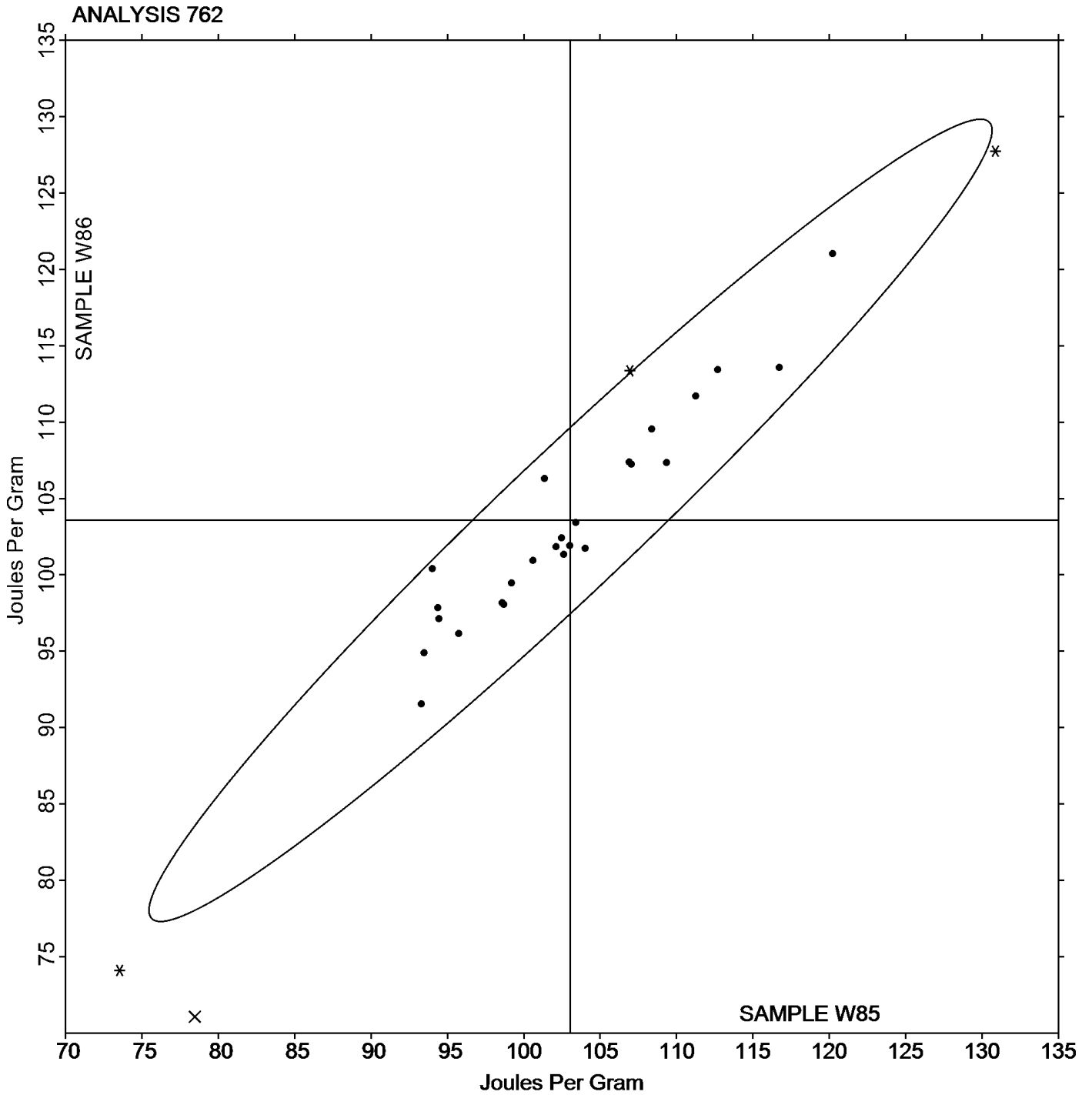
Analysis 762

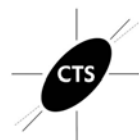
DSC Enthalpy of Crystallization

Report #123

3rd Qtr 2022

Grand Mean Sample W85: 103.06 Joules Per Gram Grand Mean Sample W86: 103.57 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #123

Analysis 763

3rd Qtr 2022

DSC Enthalpy of Fusion

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BBDTF		79.35	-21.95	-1.91	79.71	-22.00	-1.90	TA
3MAU8U		118.02	16.72	1.45	113.98	12.27	1.06	TA
3ZEXNG		94.10	-7.20	-0.63	94.37	-7.34	-0.64	TA
4PM7BN		103.72	2.42	0.21	105.55	3.84	0.33	TA
6B4MA8	X	133.05	31.75	2.76	151.50	49.79	4.31	NZ
8AME7P		113.40	12.10	1.05	112.80	11.09	0.96	TA
AEMJPK		105.30	4.00	0.35	103.17	1.46	0.13	TA
BG9HTG		109.63	8.34	0.72	110.43	8.72	0.75	TA
C3LPHE		103.93	2.64	0.23	100.00	-1.71	-0.15	NZ
C8YHH7		109.27	7.97	0.69	110.70	8.99	0.78	TA
CFD8GE		93.99	-7.31	-0.63	93.38	-8.33	-0.72	TA
EGX6GF		93.47	-7.83	-0.68	94.90	-6.81	-0.59	PE
EPDLBB		94.63	-6.67	-0.58	90.48	-11.23	-0.97	TA
GDPLD6		103.52	2.22	0.19	102.42	0.71	0.06	TA
HCV7PE		96.56	-4.73	-0.41	100.93	-0.78	-0.07	TA
LEAR7Q		102.19	0.90	0.08	101.40	-0.31	-0.03	TA
LFKURP	*	95.24	-6.05	-0.53	105.59	3.88	0.34	TA
LXVCGV		123.63	22.34	1.94	127.33	25.62	2.22	TA
M6CLJ4		103.58	2.29	0.20	102.61	0.90	0.08	XX
MQDJ2V		99.93	-1.37	-0.12	99.80	-1.91	-0.17	TA
MT3T8Q		93.09	-8.21	-0.71	99.38	-2.33	-0.20	MT
NEF3PZ	*	134.93	33.64	2.92	132.83	31.12	2.69	TA
P4D3RL		86.71	-14.58	-1.27	89.57	-12.14	-1.05	XX
QB7W24		107.73	6.44	0.56	111.17	9.46	0.82	TA
QGHNK4		92.81	-8.49	-0.74	101.64	-0.07	-0.01	PE
TW384U		91.08	-10.22	-0.89	90.08	-11.63	-1.01	TA
UNRYHM		84.46	-16.84	-1.46	78.73	-22.98	-1.99	SH
WC336Q		90.41	-10.89	-0.95	90.54	-11.17	-0.97	TA
WXNYRW		101.57	0.27	0.02	101.27	-0.44	-0.04	TA
XHRXLP		98.26	-3.04	-0.26	95.53	-6.18	-0.53	NZ
Y7AVJN		107.17	5.87	0.51	103.07	1.36	0.12	XX
ZDP2QE		108.53	7.24	0.63	109.60	7.89	0.68	TA



Plastics Interlaboratory Testing Program

Report #123

Analysis 763

3rd Qtr 2022

DSC Enthalpy of Fusion

Summary Statistics

	<u>Sample W85</u>	<u>Sample W86</u>
Grand Means	101.297 Joules Per Gram	101.708 Joules Per Gram
Stnd Dev Btwn Labs	11.517 Joules Per Gram	11.560 Joules Per Gram

Statistics based on 31 of 32 reporting participants

Sample W85: PP & Sample W86: PP

Comments on Assigned Data Flags for Test #763

6B4MA8 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample W86.

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



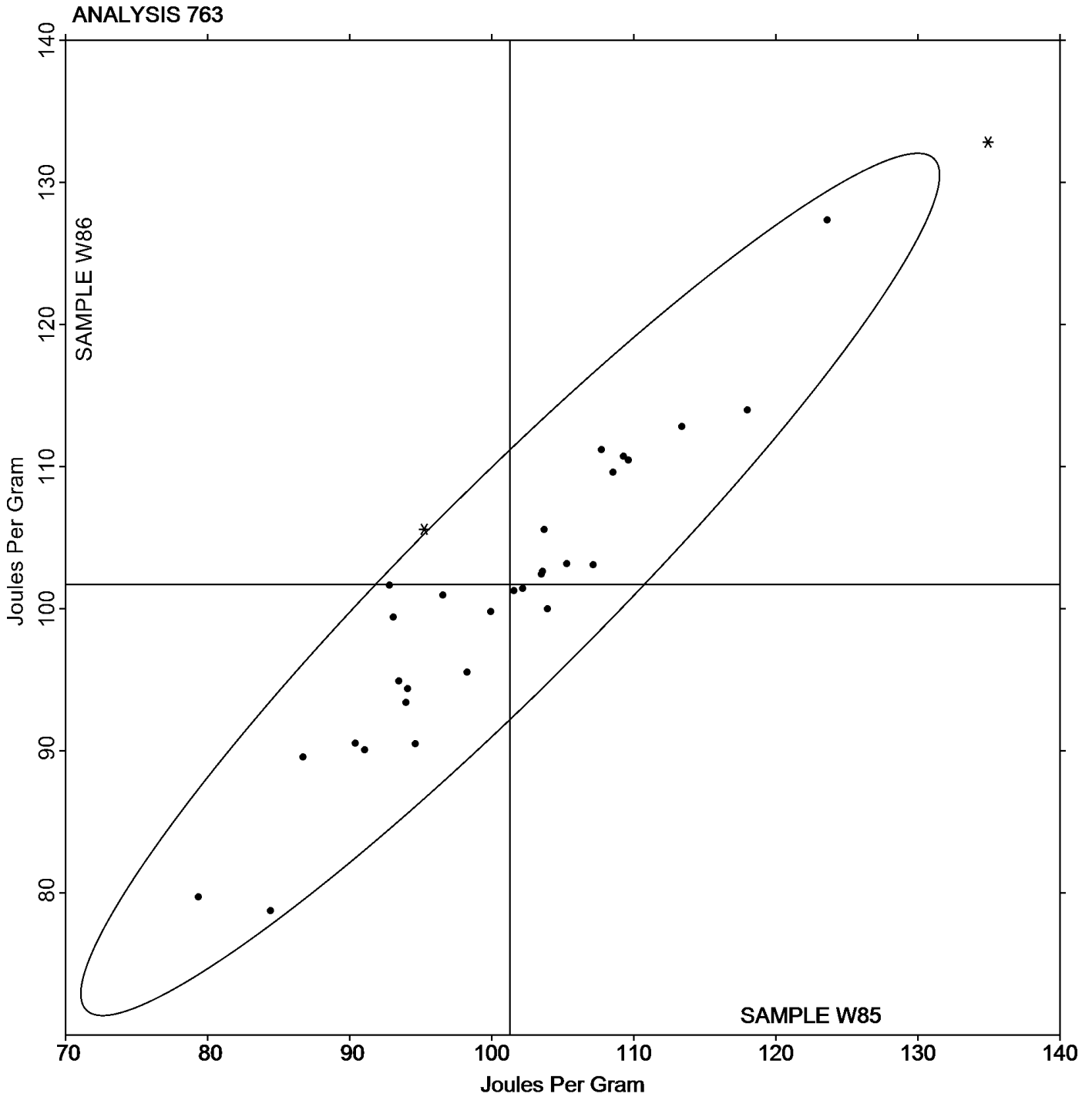
Plastics Interlaboratory Testing Program

Analysis 763
DSC Enthalpy of Fusion

Report #123

3rd Qtr 2022

Grand Mean Sample W85: 101.30 Joules Per Gram Grand Mean Sample W86: 101.71 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #123

Analysis 764

3rd Qtr 2022

DSC Glass Transition Temperature

WebCode	Data Flag	Sample V85			Sample V86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BBDTF		109.70	1.82	0.66	110.43	2.50	0.86	TA
3MAU8U		106.73	-1.15	-0.41	105.93	-2.00	-0.69	TA
3ZEXNG		112.66	4.78	1.72	112.66	4.72	1.62	TA
4PM7BN		104.70	-3.18	-1.14	104.63	-3.30	-1.13	TA
6B4MA8	X	74.00	-33.88	-12.19	79.00	-28.94	-9.94	NZ
8AME7P		104.72	-3.16	-1.14	105.55	-2.39	-0.82	TA
AEMJPK		110.11	2.23	0.80	109.80	1.87	0.64	TA
BG9HTG		108.81	0.93	0.34	109.16	1.22	0.42	TA
C3LPHE		111.17	3.29	1.18	111.80	3.86	1.33	NZ
C8YHH7		106.00	-1.88	-0.68	105.27	-2.67	-0.92	TA
CFD8GE		104.97	-2.91	-1.05	104.30	-3.63	-1.25	TA
EGX6GF		108.10	0.22	0.08	108.19	0.26	0.09	PE
EPCLFH		107.39	-0.49	-0.18	107.26	-0.68	-0.23	MT
EPDLBB		106.76	-1.12	-0.40	105.78	-2.16	-0.74	TA
HCV7PE		108.94	1.06	0.38	108.28	0.35	0.12	TA
LEAR7Q	*	114.03	6.15	2.21	115.64	7.70	2.65	TA
LFKURP		105.17	-2.71	-0.97	104.92	-3.02	-1.04	TA
LXVCGV		109.93	2.05	0.74	109.60	1.66	0.57	TA
M6CLJ4		108.34	0.46	0.17	107.62	-0.32	-0.11	XX
MQDJ2V		106.12	-1.76	-0.63	107.53	-0.41	-0.14	TA
MT3T8Q		108.70	0.82	0.30	108.87	0.93	0.32	MT
NEF3PZ		102.87	-5.01	-1.80	102.90	-5.04	-1.73	TA
P4D3RL		109.52	1.64	0.59	109.91	1.97	0.68	XX
QB7W24		108.02	0.14	0.05	108.46	0.52	0.18	TA
QGHNK4		110.00	2.12	0.76	108.90	0.96	0.33	PE
TW384U		105.26	-2.62	-0.94	105.52	-2.41	-0.83	TA
UNRYHM	*	101.18	-6.70	-2.41	102.24	-5.70	-1.96	SH
WXNYRW		108.79	0.91	0.33	108.38	0.44	0.15	TA
XHRXLP		108.20	0.32	0.12	108.30	0.36	0.13	NZ
Y7AVJN		109.78	1.90	0.68	109.84	1.90	0.65	XX
ZDP2QE		109.70	1.82	0.66	110.40	2.46	0.85	TA



Plastics Interlaboratory Testing Program

Report #123

Analysis 764

3rd Qtr 2022

DSC Glass Transition Temperature

Summary Statistics

	<u>Sample V85</u>	<u>Sample V86</u>
Grand Means	107.879 Degrees Celsius	107.936 Degrees Celsius
Stnd Dev Btwn Labs	2.780 Degrees Celsius	2.911 Degrees Celsius

Statistics based on 30 of 31 reporting participants

Sample V85: ABS & Sample V86: ABS

Comments on Assigned Data Flags for Test #764

6B4MA8 (X) - Data for both samples are low.

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

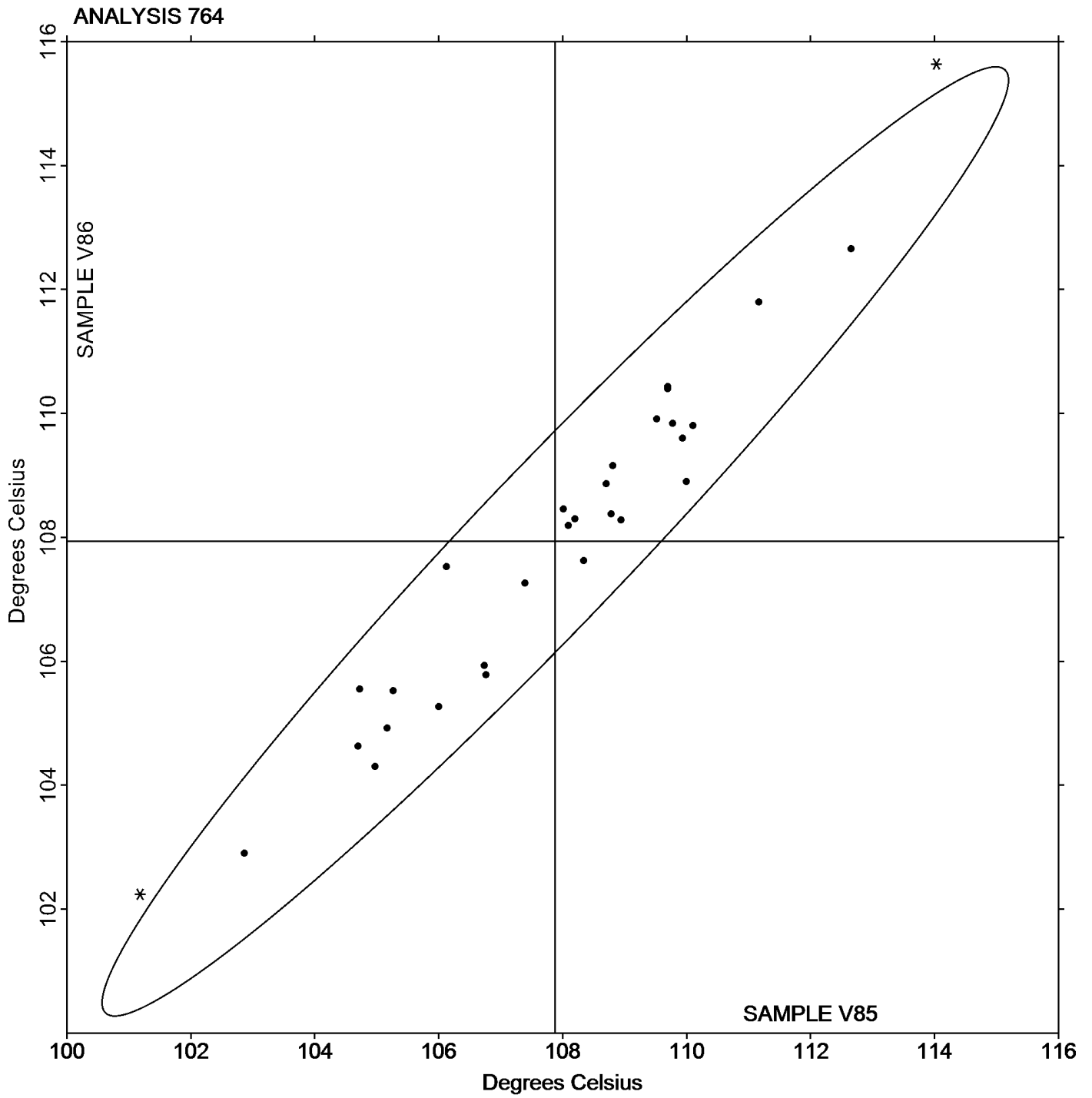
Analysis 764

DSC Glass Transition Temperature

Report #123

3rd Qtr 2022

Grand Mean Sample V85: 107.88 Degrees Celsius Grand Mean Sample V86: 107.94 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #123

Analysis 765

3rd Qtr 2022

Research Crystallization Peak Temperature

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MAU8U		120.67	0.64	0.18	121.43	1.18	0.33	XX
6B4MA8		117.00	-3.03	-0.84	117.50	-2.75	-0.77	XX
8AME7P		126.43	6.41	1.78	126.13	5.88	1.64	TA
8Z3V4D		120.43	0.41	0.11	120.37	0.12	0.03	TA
AEMJPK		119.70	-0.32	-0.09	120.06	-0.19	-0.05	TA
C8YHH7		122.43	2.41	0.67	123.90	3.65	1.02	TA
CFD8GE		111.21	-8.82	-2.45	111.18	-9.07	-2.53	TA
EPDLBB		117.07	-2.96	-0.82	116.62	-3.63	-1.01	XX
LYVTRD		123.25	3.22	0.89	123.24	2.99	0.84	SH
M6CLJ4		122.95	2.92	0.81	122.12	1.87	0.52	XX
MT3T8Q		118.33	-1.69	-0.47	119.63	-0.62	-0.17	MT
NEF3PZ		118.97	-1.06	-0.29	119.57	-0.68	-0.19	TA
QB7W24		120.43	0.40	0.11	120.47	0.22	0.06	XX
Y7AVJN		121.52	1.49	0.41	121.29	1.04	0.29	XX

Summary Statistics		
	Sample W85	Sample W86
Grand Means	120.028 Degrees Celsius	120.251 Degrees Celsius
Stnd Dev Btwn Labs	3.600 Degrees Celsius	3.583 Degrees Celsius
Statistics based on 14 of 14 reporting participants		

Sample W85: PP & Sample W86: PP

Key to Instrument Codes Reported by Participants

- MT Mettler Toledo Instruments
- SH Shimadzu
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

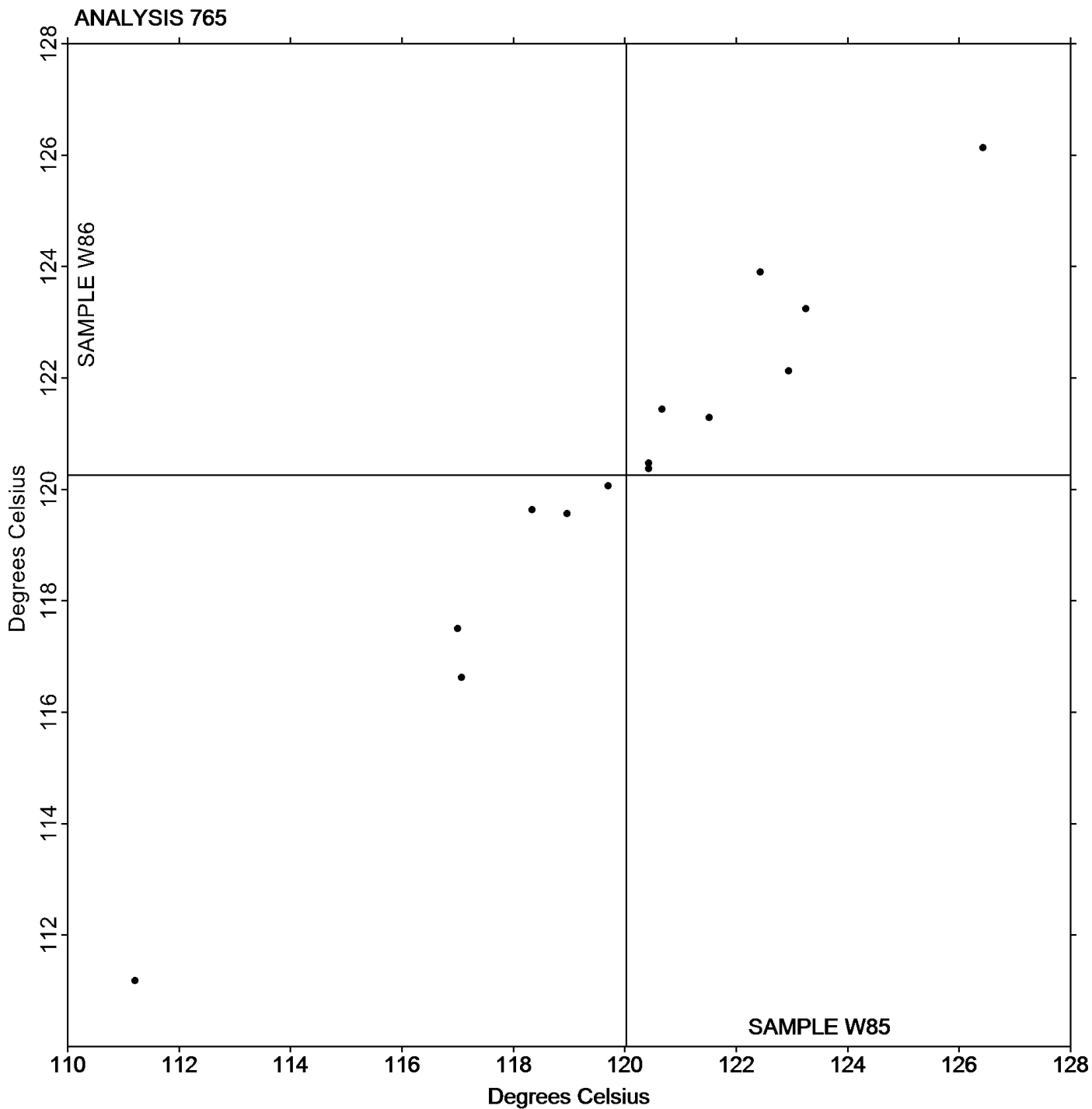
Analysis 765

Research Crystallization Peak Temperature

Report #123

3rd Qtr 2022

Grand Mean Sample W85: 120.03 Degrees Celsius Grand Mean Sample W86: 120.25 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 766

3rd Qtr 2022

Research Melting Peak Temperature

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MAU8U		162.87	-1.33	-0.68	163.43	-0.77	-0.50	TA
8AME7P		166.07	1.87	0.95	164.30	0.10	0.06	XX
8F7NBD		165.16	0.97	0.49	165.51	1.31	0.86	TA
8Z3V4D		163.17	-1.03	-0.52	163.20	-1.00	-0.66	TA
AEMJPK		163.34	-0.85	-0.43	163.39	-0.81	-0.53	TA
C8YHH7		165.20	1.01	0.51	165.57	1.37	0.89	TA
CFD8GE		165.32	1.13	0.57	165.62	1.42	0.93	TA
EPDLBB		162.18	-2.01	-1.03	162.61	-1.59	-1.04	XX
LYVTRD		165.04	0.85	0.43	164.99	0.79	0.51	SH
M6CLJ4		164.70	0.51	0.26	164.78	0.58	0.38	XX
MT3T8Q		167.70	3.51	1.79	165.70	1.50	0.98	MT
NEF3PZ		160.60	-3.59	-1.83	161.07	-3.13	-2.05	TA
QB7W24		165.80	1.61	0.82	166.18	1.98	1.30	XX
Y7AVJN		161.55	-2.65	-1.35	162.47	-1.73	-1.13	XX

Summary Statistics		
	Sample W85	Sample W86
Grand Means	164.192 Degrees Celsius	164.201 Degrees Celsius
Stnd Dev Btwn Labs	1.963 Degrees Celsius	1.527 Degrees Celsius
Statistics based on 14 of 14 reporting participants		

Sample W85: PP & Sample W86: PP

Key to Instrument Codes Reported by Participants

- MT Mettler Toledo Instruments
- SH Shimadzu
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

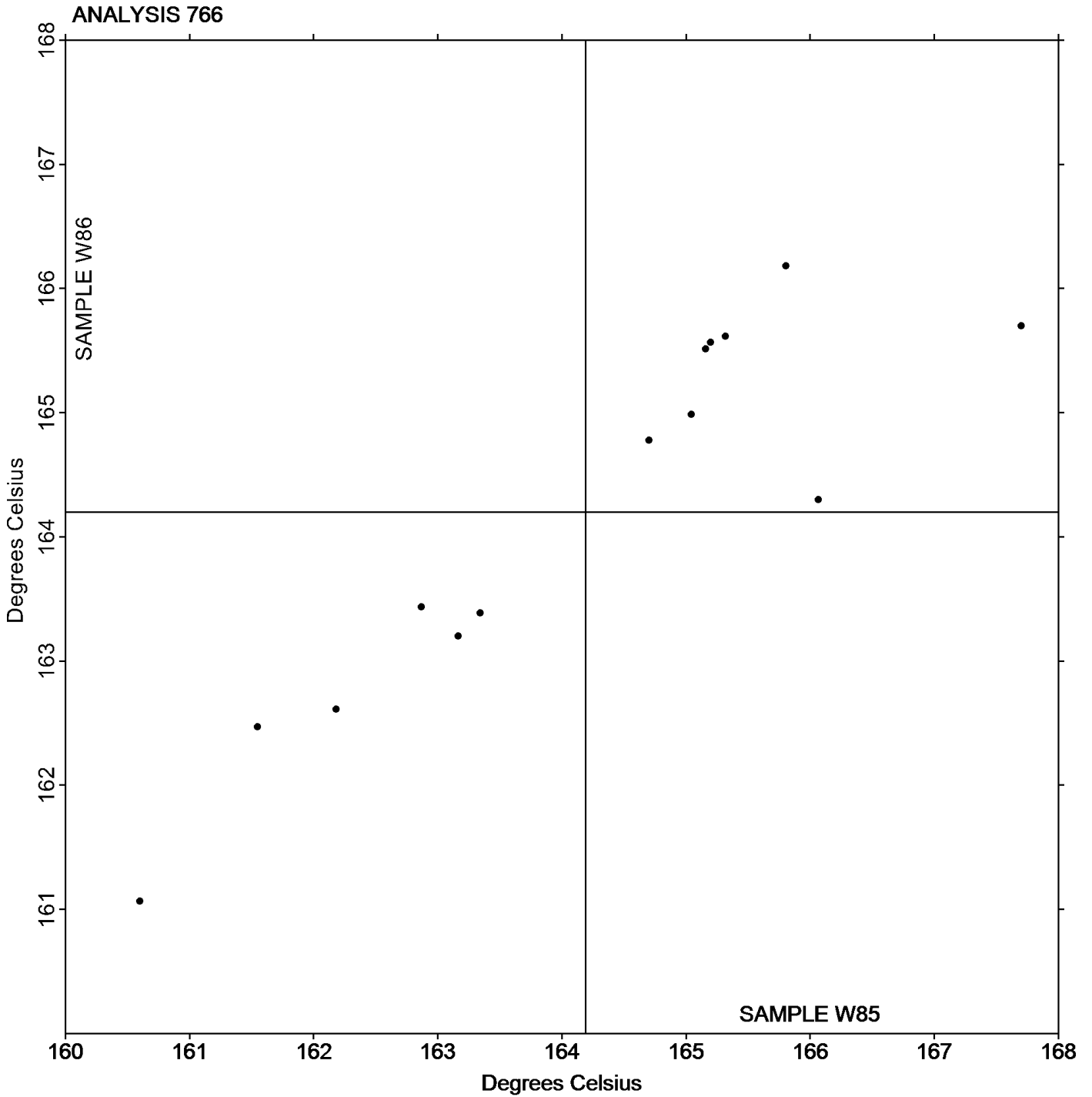
Analysis 766

Research Melting Peak Temperature

Report #123

3rd Qtr 2022

Grand Mean Sample W85: 164.19 Degrees Celsius Grand Mean Sample W86: 164.20 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 767

3rd Qtr 2022

Research Heat of Crystallization

WebCode	Data Flag	Sample W85			Sample W86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MAU8U		115.00	9.00	0.82	115.20	8.83	0.84	TA
8AME7P		109.37	3.37	0.31	107.43	1.06	0.10	XX
8Z3V4D		97.78	-8.22	-0.75	97.13	-9.24	-0.88	TA
AEMJPK		106.90	0.90	0.08	107.37	0.99	0.09	TA
CFD8GE		95.75	-10.25	-0.93	96.14	-10.24	-0.98	TA
EPDLBB		98.69	-7.31	-0.66	98.05	-8.32	-0.79	XX
LYVTRD		95.90	-10.10	-0.92	100.32	-6.06	-0.58	SH
M6CLJ4		103.04	-2.96	-0.27	101.91	-4.47	-0.43	XX
MT3T8Q		105.62	-0.38	-0.03	113.36	6.98	0.67	MT
NEF3PZ		133.93	27.93	2.53	131.47	25.09	2.40	TA
Y7AVJN		104.03	-1.97	-0.18	101.73	-4.64	-0.44	XX

Summary Statistics

	Sample W85	Sample W86
Grand Means	106.001 Joules Per Gram	106.373 Joules Per Gram
Std Dev Btwn Labs	11.020 Joules Per Gram	10.469 Joules Per Gram

Statistics based on 11 of 11 reporting participants

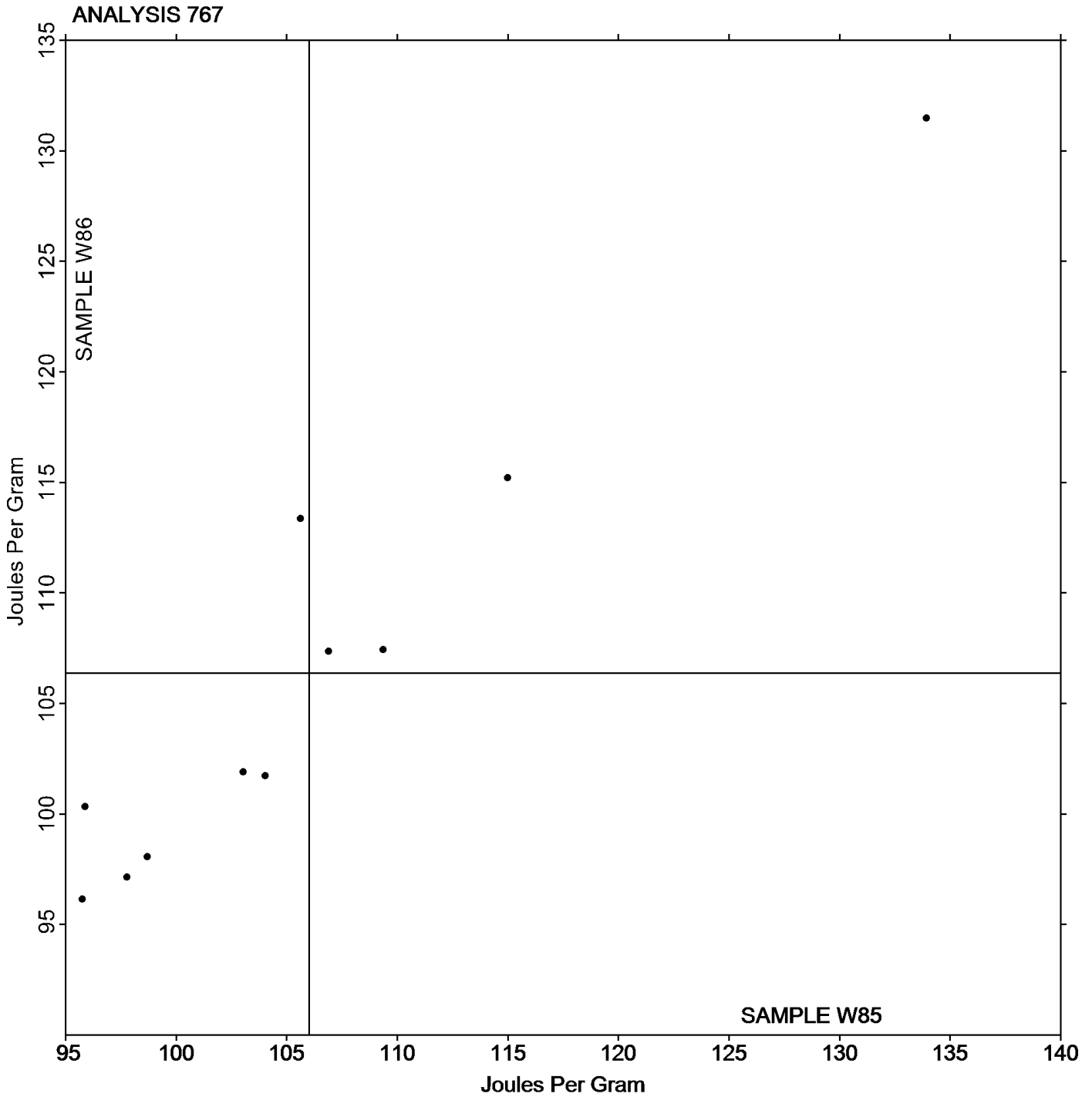
Sample W85: PP & Sample W86: PP

Key to Instrument Codes Reported by Participants

MT	Mettler Toledo Instruments	SH	Shimadzu
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



Grand Mean Sample W85: 106.00 Joules Per Gram Grand Mean Sample W86: 106.37 Joules Per Gram



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 768

3rd Qtr 2022

Research Heat of Fusion

WebCode	Data Flag	<u>Sample W85</u>			<u>Sample W86</u>			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MAU8U		117.39	12.53	0.95	116.29	12.00	0.95	TA
8AME7P		113.40	8.54	0.65	112.80	8.51	0.67	TA
8Z3V4D		93.64	-11.23	-0.85	94.60	-9.69	-0.77	TA
AEMJPK		105.30	0.44	0.03	103.17	-1.13	-0.09	TA
CFD8GE		93.99	-10.88	-0.82	93.38	-10.92	-0.86	TA
EPDLBB		94.63	-10.23	-0.78	90.48	-13.82	-1.09	XX
LYVTRD		95.86	-9.00	-0.68	97.26	-7.03	-0.56	SH
M6CLJ4		103.58	-1.28	-0.10	102.61	-1.68	-0.13	XX
MT3T8Q		93.09	-11.77	-0.89	99.38	-4.91	-0.39	MT
NEF3PZ		135.43	30.57	2.32	134.20	29.91	2.37	TA
Y7AVJN		107.17	2.30	0.17	103.07	-1.22	-0.10	XX

Summary Statistics

	<u>Sample W85</u>	<u>Sample W86</u>
Grand Means	104.862 Joules Per Gram	104.295 Joules Per Gram
Stnd Dev Btwn Labs	13.192 Joules Per Gram	12.625 Joules Per Gram

Statistics based on 11 of 11 reporting participants

Sample W85: PP & Sample W86: PP

Key to Instrument Codes Reported by Participants

- MT Mettler Toledo Instruments
- SH Shimadzu
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

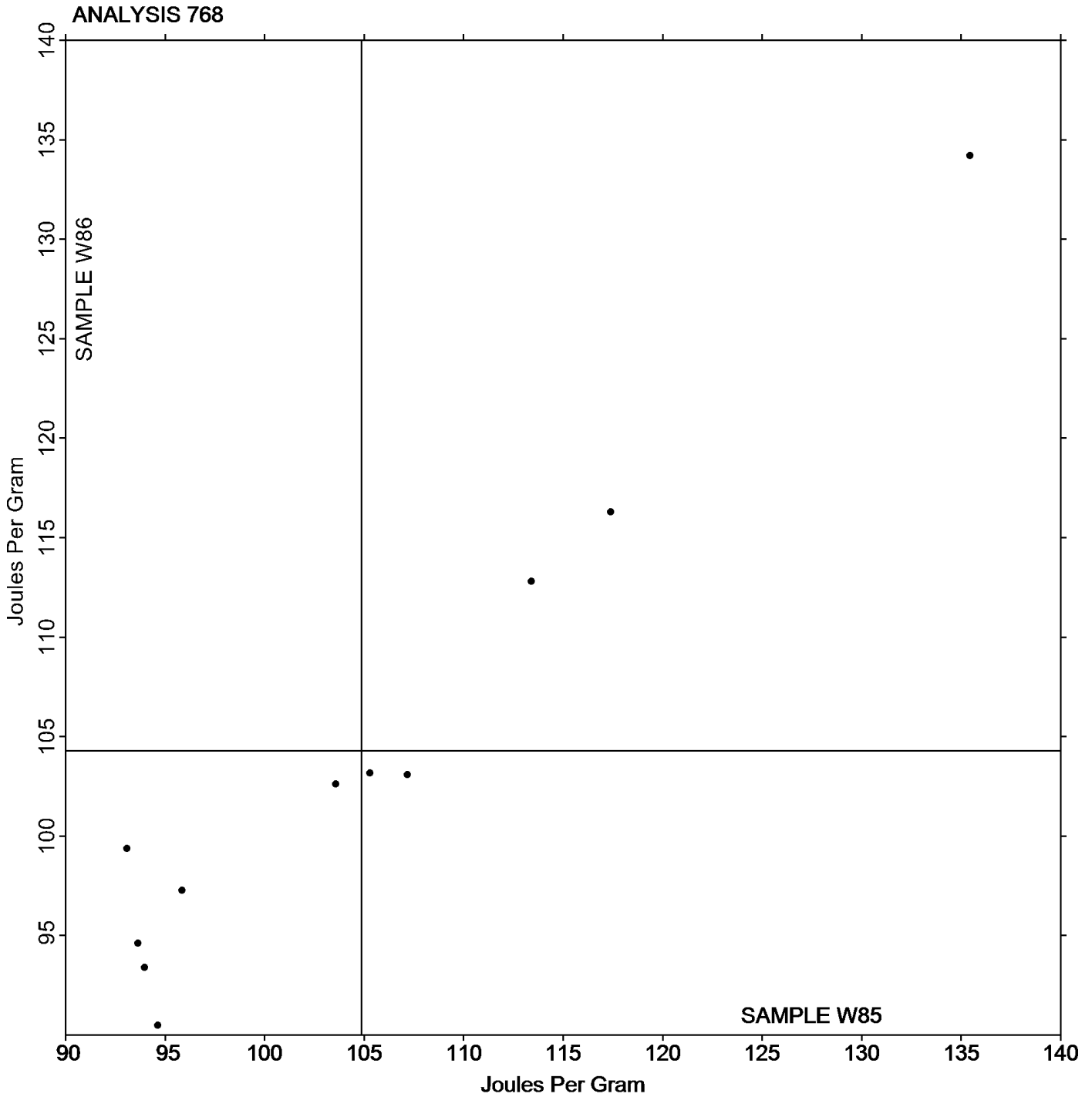
Analysis 768

Research Heat of Fusion

Report #123

3rd Qtr 2022

Grand Mean Sample W85: 104.86 Joules Per Gram Grand Mean Sample W86: 104.29 Joules Per Gram



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 769

3rd Qtr 2022

Research Glass Transition Temperature

WebCode	Data Flag	Sample V85			Sample V86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3MAU8U		106.30	-0.98	-0.49	105.97	-1.09	-0.55	TA
8AME7P		104.72	-2.55	-1.27	105.55	-1.51	-0.76	TA
8Z3V4D		105.00	-2.28	-1.13	105.20	-1.86	-0.94	TA
AEMJPK		110.11	2.83	1.41	109.80	2.74	1.38	TA
CFD8GE		104.97	-2.30	-1.15	104.30	-2.76	-1.39	TA
EPDLBB		106.76	-0.51	-0.26	105.78	-1.28	-0.65	XX
LYVTRD		108.09	0.82	0.41	107.67	0.61	0.31	SH
M6CLJ4		108.34	1.06	0.53	107.62	0.56	0.28	XX
MT3T8Q		108.70	1.42	0.71	108.87	1.81	0.91	MT
Y7AVJN		109.78	2.50	1.24	109.84	2.78	1.40	XX

Summary Statistics		
	Sample V85	Sample V86
Grand Means	107.278 Degrees Celsius	107.059 Degrees Celsius
Std Dev Btwn Labs	2.009 Degrees Celsius	1.983 Degrees Celsius
Statistics based on 10 of 10 reporting participants		

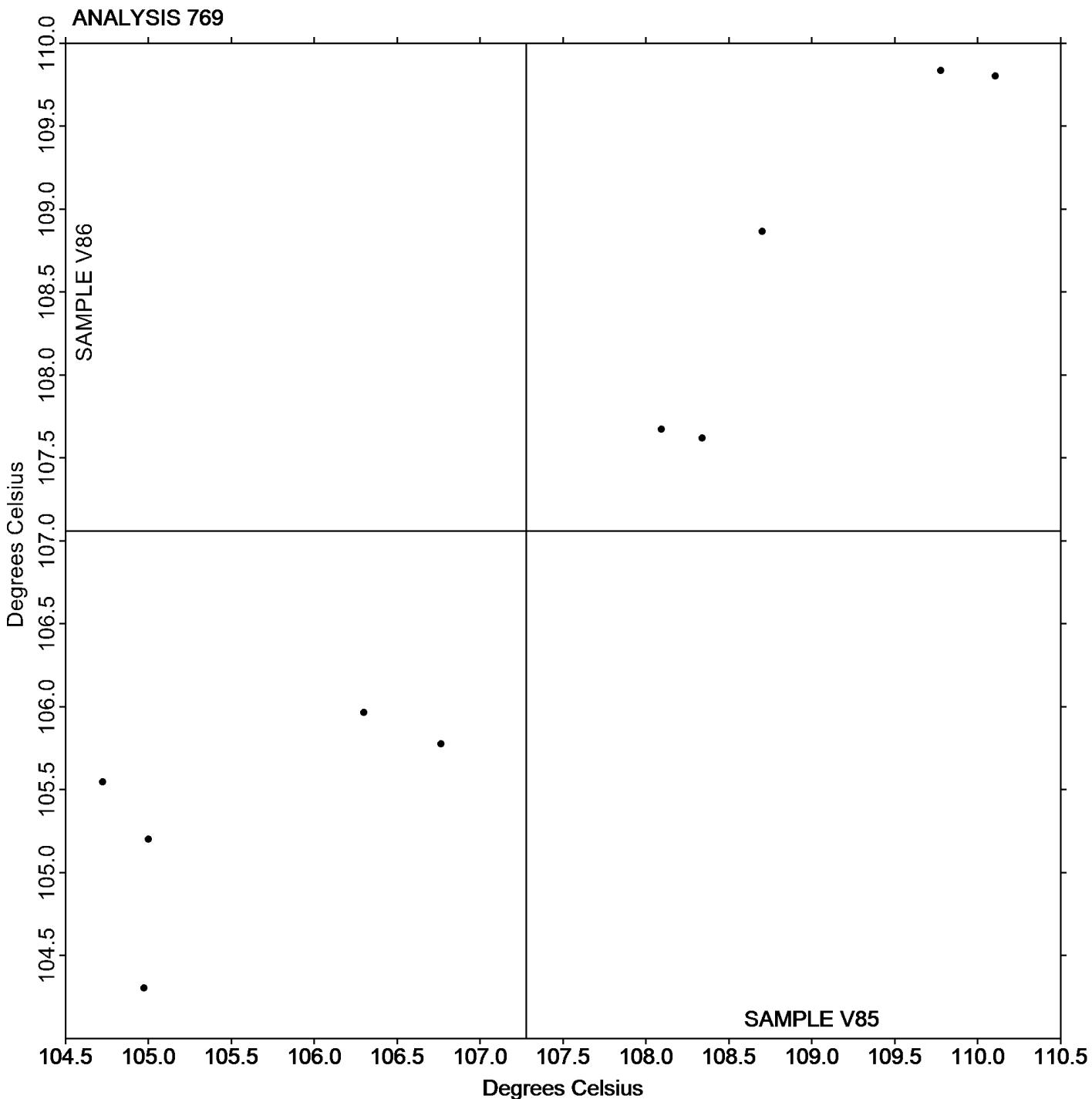
Sample V85: ABS & Sample V86: ABS

Key to Instrument Codes Reported by Participants

- MT Mettler Toledo Instruments
- TA TA Instruments
- SH Shimadzu
- XX Instrument manufacturer not specified by lab



Grand Mean Sample V85: 107.28 Degrees Celsius Grand Mean Sample V86: 107.06 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 770

3rd Qtr 2022

Tensile Stress at Yield, Film Samples - psi

WebCode	Data Flag	Sample B85			Sample B86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		2,142	20	0.06	2,107	9	0.04	IN
6B4MA8		2,210	88	0.29	2,244	146	0.71	IN
8Z3V4D		2,333	211	0.68	2,220	122	0.59	IN
A9LC7B		2,218	96	0.31	2,227	129	0.63	IN
BL4A2D		2,041	-81	-0.26	2,228	130	0.63	SH
CDRKQC	*	3,036	914	2.96	2,446	348	1.69	LI
CXXVWZ		2,191	69	0.22	2,200	102	0.49	IM
GW6X4A		1,685	-437	-1.41	1,719	-379	-1.83	IN
J989LG		1,682	-440	-1.42	1,627	-471	-2.28	TO
JNHPU4		1,989	-133	-0.43	2,008	-90	-0.44	SH
LFKURP		2,166	44	0.14	2,178	80	0.39	IM
LVRVJ7		2,188	66	0.21	2,162	64	0.31	OA
QQ4YN4		2,092	-30	-0.10	2,120	23	0.11	WZ
RC3R48		2,014	-108	-0.35	1,993	-105	-0.51	MT
RHNMZ4		1,891	-231	-0.75	2,079	-19	-0.09	IN
UNRYHM		2,039	-83	-0.27	2,123	26	0.12	WZ
W3EATU		2,480	358	1.16	2,285	187	0.91	IN
W7KJAR		1,801	-321	-1.04	1,794	-304	-1.47	IN

Summary Statistics

	Sample B85	Sample B86
Grand Means	2,122.0 psi	2,097.8 psi
Std Dev Btwn Labs	308.8 psi	206.6 psi

Statistics based on 18 of 18 reporting participants

Sample B85: LDPE & Sample B86: LDPE

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TO	Tinius Olsen	WZ	Zwick



Plastics Interlaboratory Testing Program

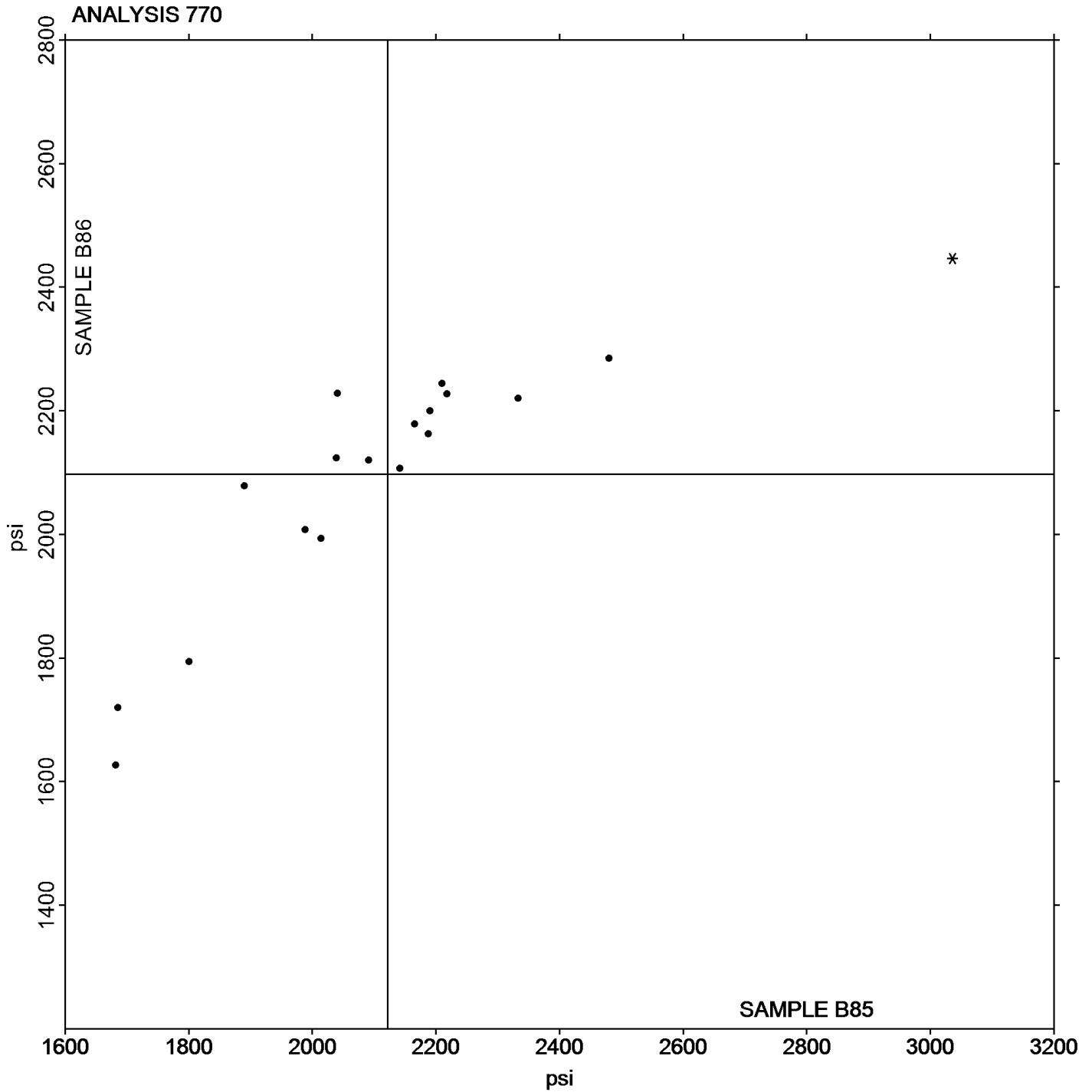
Report #123

Analysis 770

3rd Qtr 2022

Tensile Stress at Yield, Film Samples - psi

Grand Mean Sample B85: 2,122.00 psi Grand Mean Sample B86: 2,097.85 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 771

3rd Qtr 2022

Tensile Stress at Break, Film Samples - psi

WebCode	Data Flag	Sample B85			Sample B86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		4,255	66	0.11	4,334	200	0.36	IN
3MAU8U		3,376	-814	-1.36	3,415	-719	-1.31	UC
6B4MA8		4,687	497	0.83	4,649	514	0.94	IN
74E4C6		4,463	274	0.46	4,338	204	0.37	MT
8HV3RA		2,805	-1,384	-2.31	2,824	-1,310	-2.39	IN
8Z3V4D		4,565	376	0.63	4,695	561	1.02	IN
97H3W3		4,859	669	1.12	4,594	460	0.84	XX
A9LC7B		4,480	291	0.48	4,459	325	0.59	XX
BL4A2D		4,058	-131	-0.22	4,097	-37	-0.07	SH
CDRKQC	X	5,792	1,602	2.67	4,766	632	1.15	LI
CXXVWZ		4,353	163	0.27	4,278	144	0.26	IM
GW6X4A	X	3,915	-275	-0.46	2,316	-1,819	-3.31	IN
J989LG		3,359	-830	-1.38	3,121	-1,013	-1.84	TO
JNHPU4		4,002	-187	-0.31	3,924	-210	-0.38	SH
K7G9Y6		3,253	-937	-1.56	3,374	-760	-1.38	XX
LFKURP		4,678	489	0.81	4,411	276	0.50	IM
LVRVJ7		4,438	248	0.41	4,472	337	0.61	OA
MB287W		4,800	611	1.02	4,580	446	0.81	MT
QQ4YN4		4,526	337	0.56	4,515	380	0.69	WZ
RC3R48		3,322	-867	-1.45	3,262	-873	-1.59	MT
RHNMZ4		3,858	-332	-0.55	4,204	70	0.13	IN
UNRYHM		4,096	-93	-0.16	4,004	-130	-0.24	WZ
W3EATU	*	5,101	912	1.52	4,511	376	0.69	IN
W7KJAR		4,523	333	0.56	4,584	450	0.82	IN
ZCCNBD		4,500	311	0.52	4,446	311	0.57	TH

Summary Statistics		
	Sample B85	Sample B86
Grand Means	4,189.5 psi	4,134.3 psi
Stnd Dev Btwn Labs	600.1 psi	549.4 psi
Statistics based on 23 of 25 reporting participants		

Sample B85: LDPE & Sample B86: LDPE



Plastics Interlaboratory Testing Program

Analysis 771

Tensile Stress at Break, Film Samples - psi

Report #123

3rd Qtr 2022

Comments on Assigned Data Flags for Test #771

CDRKQC (X) - Data for sample B85 are high.

GW6X4A (X) - Data for sample B86 are low. Inconsistent within the determinations of sample B85.

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TH	Thwing Albert	TO	Tinius Olsen
UC	United	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

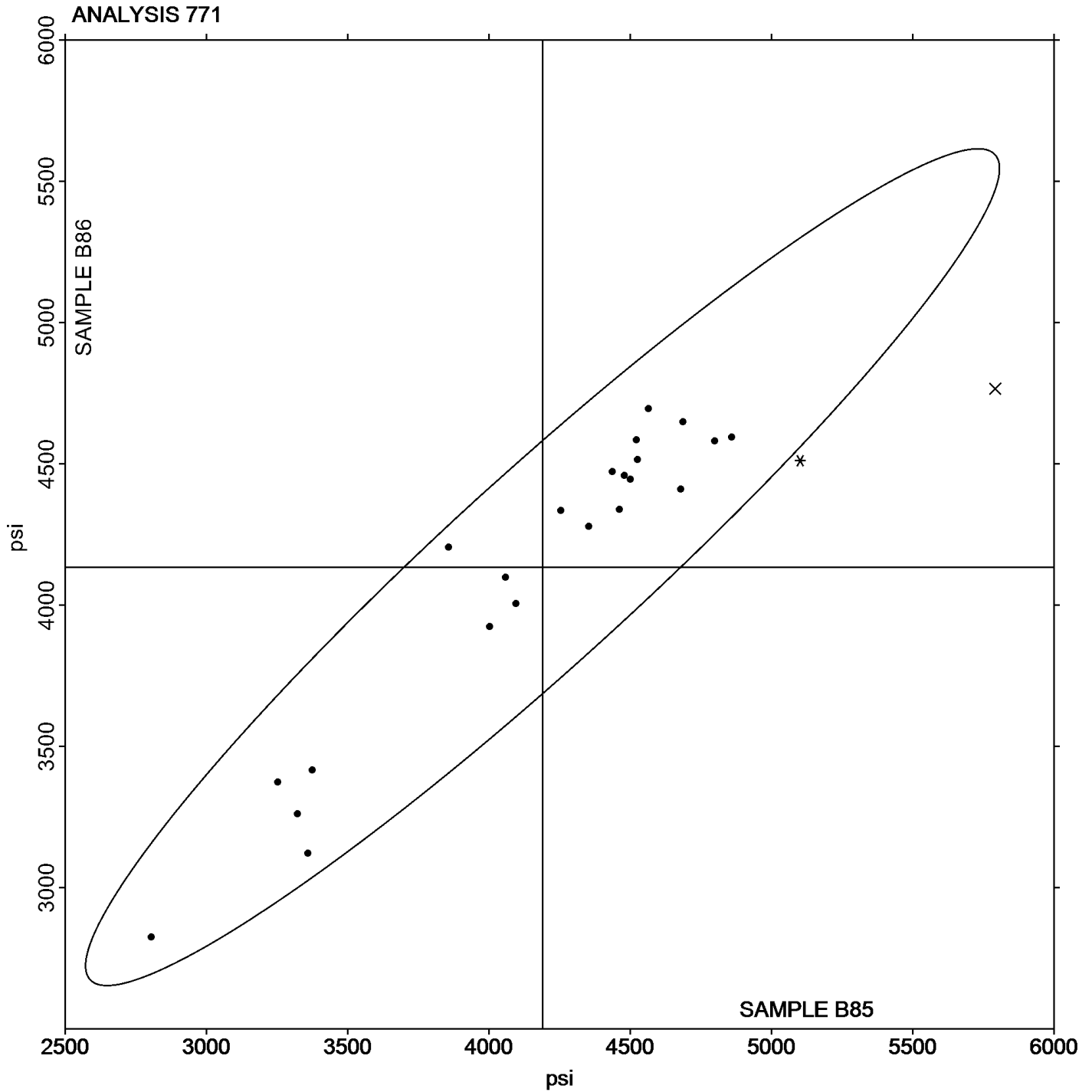
Analysis 771

Tensile Stress at Break, Film Samples - psi

Report #123

3rd Qtr 2022

Grand Mean Sample B85: 4,189.48 psi Grand Mean Sample B86: 4,134.33 psi





Plastics Interlaboratory Testing Program

Report #123

Analysis 772

3rd Qtr 2022

Percent Elongation at Yield, Films

WebCode	Data Flag	Sample B85			Sample B86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		116.49	32.76	0.87	114.99	30.61	0.82	IN
6B4MA8		42.96	-40.76	-1.09	42.14	-42.24	-1.13	IN
8Z3V4D		81.39	-2.34	-0.06	83.61	-0.77	-0.02	IN
A9LC7B		107.09	23.37	0.62	110.56	26.18	0.70	IN
BL4A2D	*	120.49	36.77	0.98	104.27	19.90	0.53	SH
CDRKQC		77.90	-5.82	-0.16	83.26	-1.12	-0.03	LI
CXXVWZ		118.29	34.57	0.92	120.29	35.91	0.96	IM
GW6X4A		8.20	-75.53	-2.01	7.97	-76.41	-2.05	IN
J989LG		41.02	-42.70	-1.14	36.56	-47.82	-1.28	TO
JNHPU4		93.39	9.67	0.26	96.21	11.83	0.32	SH
LFKURP		133.41	49.68	1.32	136.46	52.08	1.39	IM
QQ4YN4		107.14	23.42	0.62	107.65	23.27	0.62	WZ
RC3R48		64.19	-19.53	-0.52	76.18	-8.20	-0.22	MT
RHNMZ4		116.92	33.20	0.88	120.80	36.42	0.98	IN
UNRYHM		74.00	-9.72	-0.26	77.20	-7.18	-0.19	WZ
W3EATU		101.13	17.41	0.46	96.08	11.70	0.31	IN
W7KJAR		19.28	-64.44	-1.72	20.21	-64.17	-1.72	IN
ZCCNBD	X	1,138.77	1,055.05	28.11	1,164.59	1,080.21	28.93	TH

Summary Statistics		
	Sample B85	Sample B86
Grand Means	83.723 Percent	84.379 Percent
Std Dev Btwn Labs	37.533 Percent	37.344 Percent
Statistics based on 17 of 18 reporting participants		

Sample B85: LDPE & Sample B86: LDPE

Comments on Assigned Data Flags for Test #772

ZCCNBD (X) - Extreme data.

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
SH	Shimadzu	TH	Thwing Albert
TO	Tinius Olsen	WZ	Zwick



Plastics Interlaboratory Testing Program

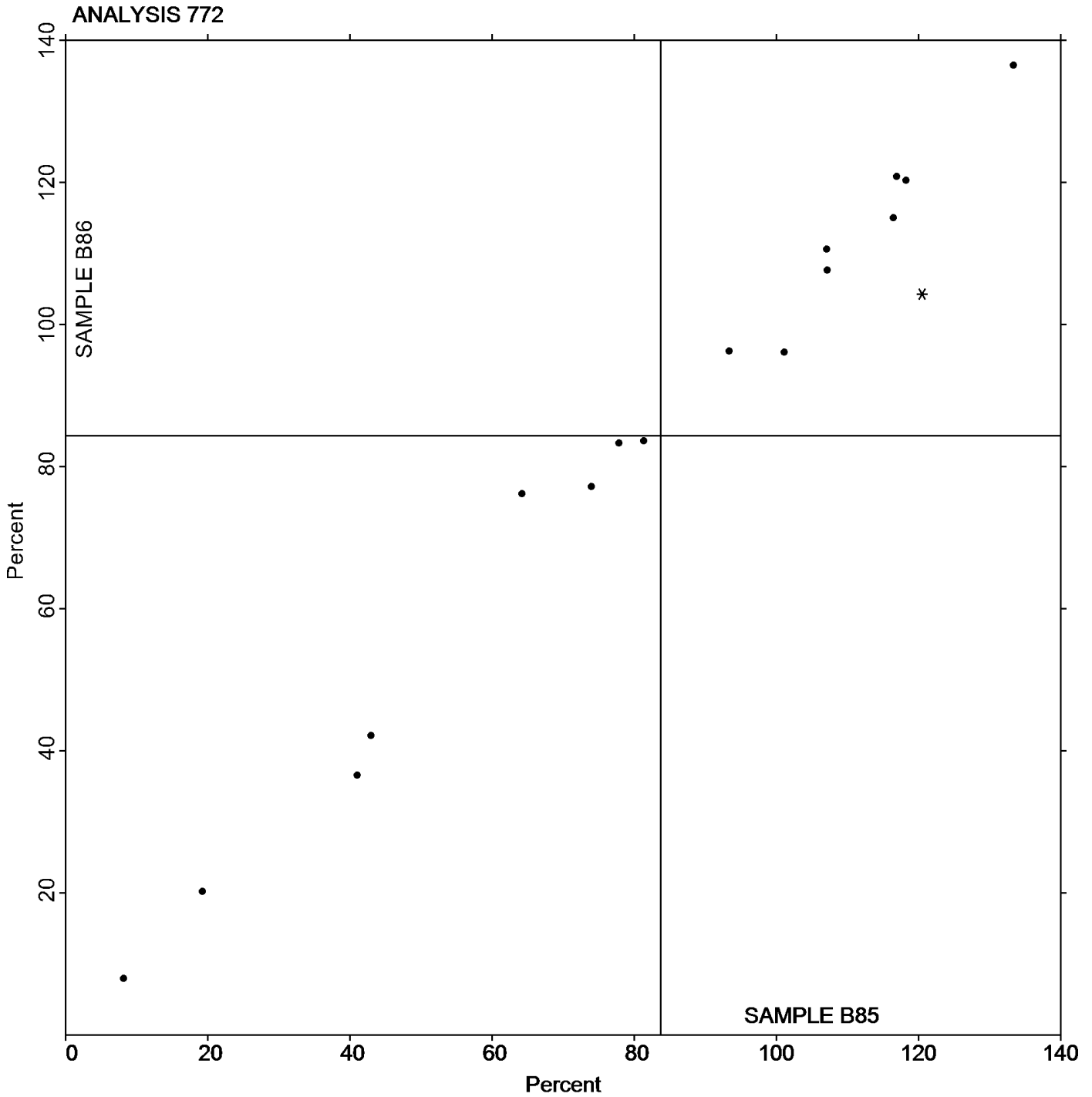
Analysis 772

Percent Elongation at Yield, Films

Report #123

3rd Qtr 2022

Grand Mean Sample B85: 83.723 Percent Grand Mean Sample B86: 84.379 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 773

3rd Qtr 2022

Percent Elongation at Break, Film Samples

WebCode	Data Flag	Sample B85			Sample B86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		1,041.7	215.3	1.40	1,016.4	198.0	1.26	IN
3MAU8U		831.5	5.1	0.03	849.0	30.6	0.19	UC
6B4MA8		735.8	-90.6	-0.59	751.4	-67.0	-0.42	IN
8HV3RA		681.1	-145.3	-0.94	696.7	-121.7	-0.77	IN
8Z3V4D		615.5	-210.9	-1.37	704.5	-113.9	-0.72	IN
97H3W3		890.5	64.1	0.42	866.8	48.4	0.31	XX
A9LC7B		826.0	-0.4	0.00	836.0	17.6	0.11	IN
BL4A2D		935.5	109.1	0.71	821.7	3.3	0.02	SH
CDRKQC		1,003.2	176.8	1.15	1,036.8	218.4	1.38	LI
GW6X4A	X	935.3	108.9	0.71	336.8	-481.5	-3.05	IN
J989LG		830.5	4.1	0.03	856.7	38.3	0.24	TO
JNHPU4		804.5	-21.9	-0.14	749.3	-69.1	-0.44	SH
K7G9Y6		739.1	-87.3	-0.57	671.9	-146.4	-0.93	XX
LFKURP		1,042.9	216.5	1.40	968.7	150.3	0.95	IM
LVRVJ7		858.6	32.2	0.21	889.2	70.8	0.45	OA
MB287W		648.1	-178.3	-1.16	620.1	-198.3	-1.26	MT
QQ4YN4		638.4	-188.0	-1.22	610.9	-207.5	-1.32	WZ
RC3R48		648.7	-177.7	-1.15	656.9	-161.5	-1.02	MT
RHNMZ4		913.9	87.5	0.57	917.1	98.7	0.63	IN
UNRYHM		611.0	-215.4	-1.40	586.0	-232.4	-1.47	WZ
W3EATU		772.4	-54.0	-0.35	713.4	-105.0	-0.67	IN
W7KJAR		970.9	144.5	0.94	1,018.2	199.8	1.27	IN
ZCCNBD		1,140.9	314.5	2.04	1,166.7	348.3	2.21	TH

Summary Statistics		
	Sample B85	Sample B86
Grand Means	826.39 Percent	818.37 Percent
Stnd Dev Btwn Labs	154.15 Percent	157.74 Percent
Statistics based on 22 of 23 reporting participants		

Sample B85: LDPE & Sample B86: LDPE

Comments on Assigned Data Flags for Test #773

GW6X4A (X) - Data for sample B86 are low. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

Analysis 773

Percent Elongation at Break, Film Samples

Report #123

3rd Qtr 2022

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TH	Thwing Albert	TO	Tinius Olsen
UC	United	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

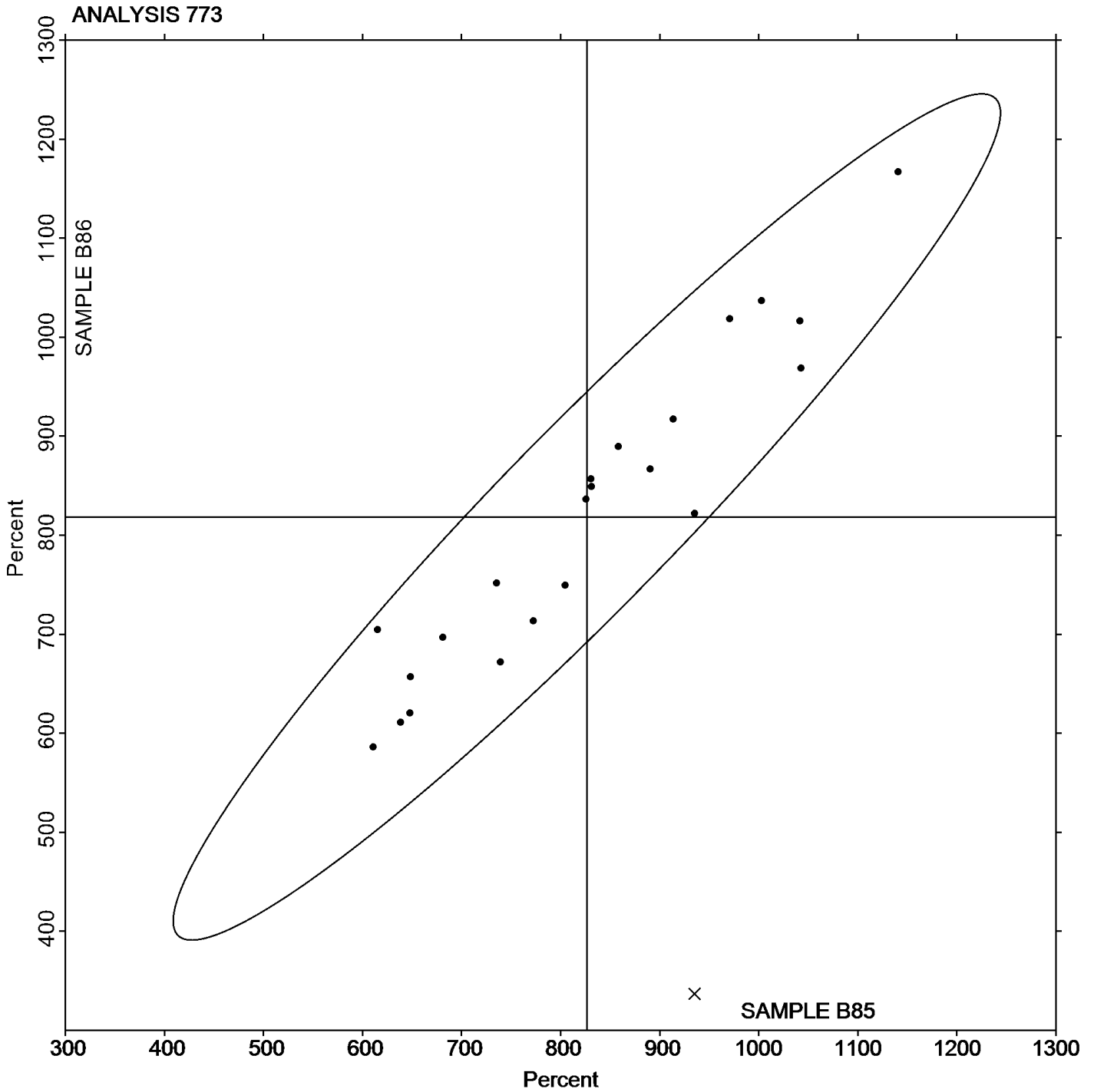
Analysis 773

Percent Elongation at Break, Film Samples

Report #123

3rd Qtr 2022

Grand Mean Sample B85: 826.39 Percent Grand Mean Sample B86: 818.37 Percent





Plastics Interlaboratory Testing Program

Report #123

Analysis 774

3rd Qtr 2022

Thickness of Film Tensile Samples - mils

WebCode	Data Flag	Sample B85			Sample B86		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BCNN4		4.0276	0.0331	0.20	3.8150	-0.0617	-0.46
3MAU8U		3.7300	-0.2645	-1.62	3.6300	-0.2467	-1.83
6B4MA8		3.9510	-0.0435	-0.27	3.7950	-0.0817	-0.61
8HV3RA		4.1850	0.1905	1.17	3.8543	-0.0224	-0.17
8Z3V4D		3.8820	-0.1125	-0.69	3.7170	-0.1597	-1.19
97H3W3		4.0551	0.0606	0.37	3.8110	-0.0657	-0.49
9LVG7D		3.9740	-0.0205	-0.13	3.9720	0.0953	0.71
A9LC7B		3.9600	-0.0345	-0.21	3.8400	-0.0367	-0.27
BL4A2D		3.9591	-0.0354	-0.22	3.9371	0.0604	0.45
CDRKQC	X	2.8213	-1.1732	-7.18	3.5174	-0.3593	-2.67
CXXVWZ		4.0000	0.0055	0.03	4.0000	0.1233	0.92
GW6X4A		4.3580	0.3635	2.22	3.8810	0.0043	0.03
J989LG		3.5985	-0.3961	-2.42	3.6694	-0.2073	-1.54
JNHPU4		4.0236	0.0291	0.18	3.7756	-0.1011	-0.75
LFKURP		4.0500	0.0555	0.34	4.0460	0.1693	1.26
LVRVJ7		4.0250	0.0305	0.19	3.9590	0.0823	0.61
MB287W		3.8550	-0.1395	-0.85	4.0700	0.1933	1.44
QQ4YN4		3.8976	-0.0969	-0.59	3.8504	-0.0263	-0.20
RC3R48		3.8000	-0.1945	-1.19	4.0000	0.1233	0.92
RHNMZ4		4.2090	0.2145	1.31	4.0920	0.2153	1.60
UNRYHM		4.1299	0.1354	0.83	3.9409	0.0643	0.48
W3EATU		4.1200	0.1255	0.77	3.6500	-0.2267	-1.69
W7KJAR		4.1250	0.1305	0.80	3.8350	-0.0417	-0.31
ZDU27M		3.9590	-0.0355	-0.22	4.0230	0.1463	1.09

Summary Statistics		
	Sample B85	Sample B86
Grand Means	3.99455 mils	3.87668 mils
Stnd Dev Btwn Labs	0.16340 mils	0.13448 mils
Statistics based on 23 of 24 reporting participants		

Sample B85: LDPE & Sample B86: LDPE

Comments on Assigned Data Flags for Test #774

CDRKQC (X) - Data for both samples are low.



Plastics Interlaboratory Testing Program

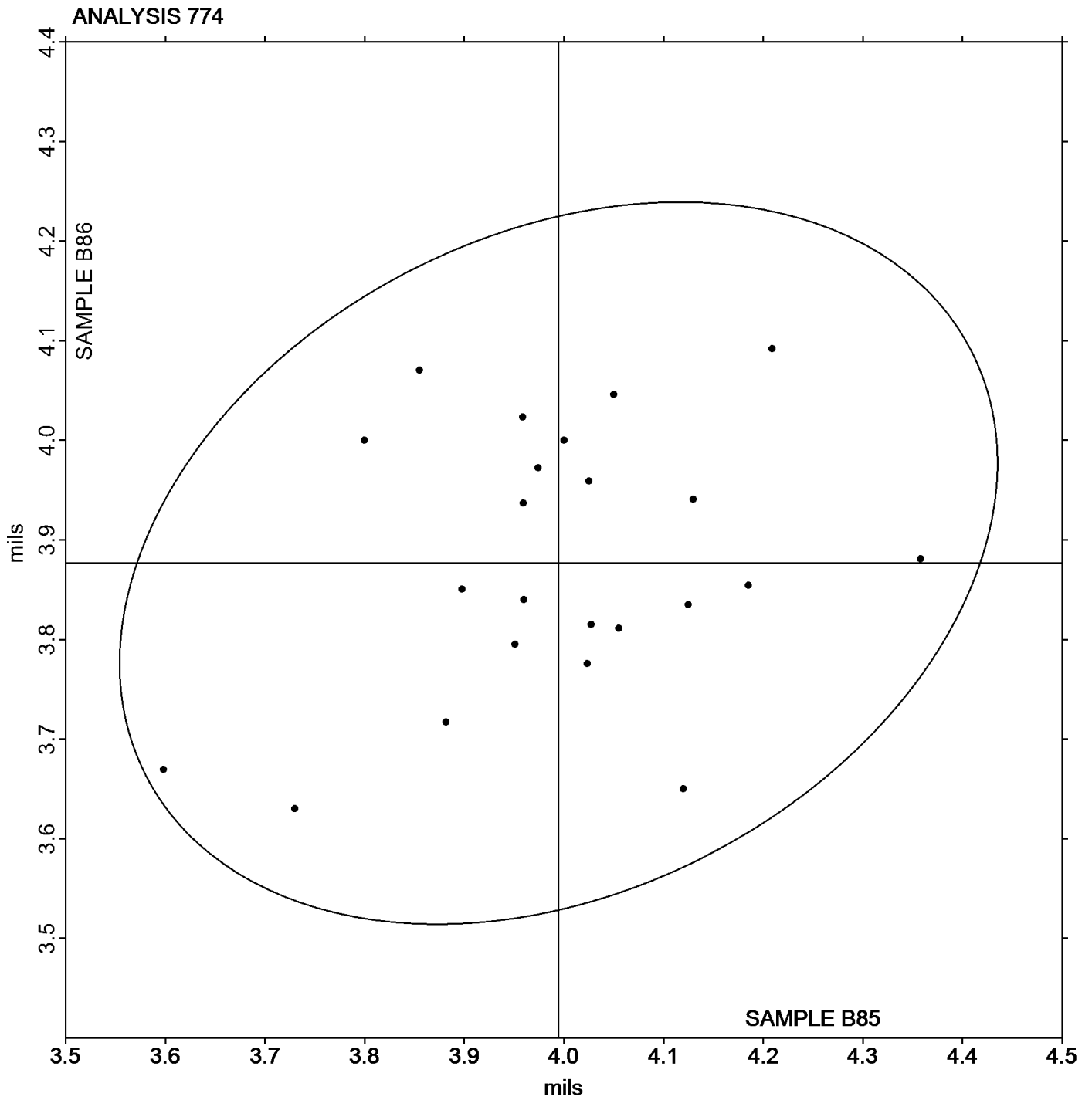
Analysis 774

Thickness of Film Tensile Samples - mils

Report #123

3rd Qtr 2022

Grand Mean Sample B85: 3.9945 mils Grand Mean Sample B86: 3.8767 mils





Plastics Interlaboratory Testing Program

Report #123

Analysis 775

3rd Qtr 2022

Secant Modulus at 1% Strain - psi

WebCode	Data Flag	Sample B85			Sample B86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6B4MA8		37,825	2,738	0.29	37,731	4,713	0.77	IN
8HV3RA		24,797	-10,290	-1.11	25,561	-7,457	-1.21	IN
8Z3V4D		34,500	-588	-0.06	34,743	1,725	0.28	IN
BL4A2D		37,665	2,578	0.28	38,256	5,238	0.85	SH
CDRKQC		54,848	19,761	2.13	39,728	6,710	1.09	LI
GW6X4A		39,727	4,640	0.50	34,945	1,927	0.31	IN
J989LG		24,980	-10,107	-1.09	24,010	-9,008	-1.46	TO
JNHPU4		18,070	-17,017	-1.83	18,525	-14,493	-2.35	SH
LFKURP		34,818	-269	-0.03	35,259	2,241	0.36	IM
LVRVJ7		35,000	-87	-0.01	33,970	952	0.15	OA
QQ4YN4		36,468	1,381	0.15	36,122	3,104	0.50	WZ
RC3R48		33,448	-1,639	-0.18	33,400	382	0.06	MT
RHNMZ4		28,855	-6,232	-0.67	28,880	-4,138	-0.67	IN
UNRYHM		50,604	15,517	1.67	39,944	6,926	1.13	WZ
W7KJAR		34,701	-386	-0.04	34,196	1,177	0.19	IN

Summary Statistics

	Sample B85	Sample B86
Grand Means	35,087.1 psi	33,018.0 psi
Stnd Dev Btwn Labs	9,291.2 psi	6,154.9 psi

Statistics based on 15 of 15 reporting participants

Sample B85: LDPE & Sample B86: LDPE

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TO	Tinius Olsen	WZ	Zwick



Plastics Interlaboratory Testing Program

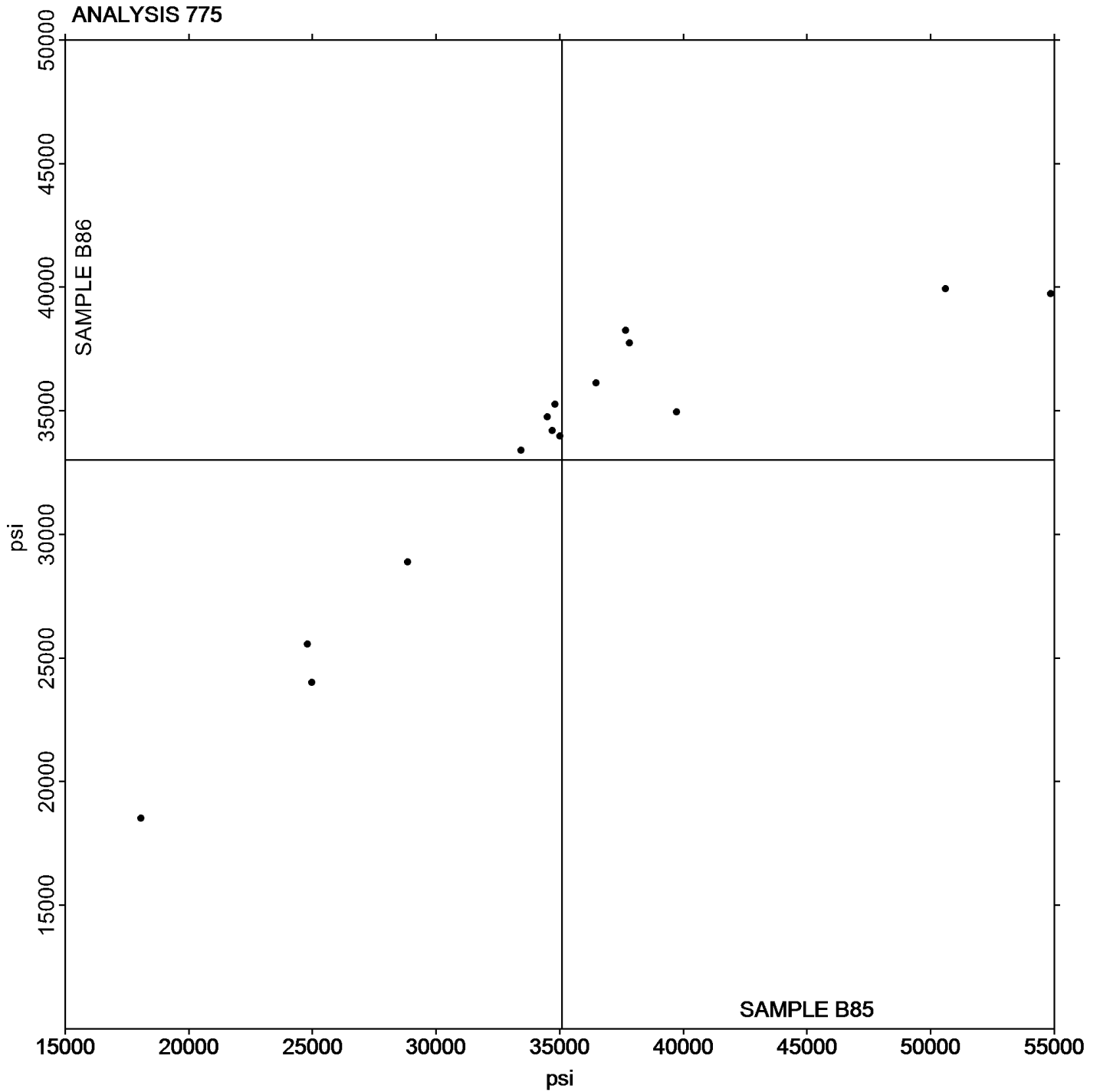
Report #123

Analysis 775

3rd Qtr 2022

Secant Modulus at 1% Strain - psi

Grand Mean Sample B85: 35,087.14 psi Grand Mean Sample B86: 33,018.00 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 776

3rd Qtr 2022

Secant Modulus at 2% Strain - psi

WebCode	Data Flag	Sample B85			Sample B86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6B4MA8		31,296	-1,259	-0.13	31,547	345	0.04	IN
8HV3RA		26,839	-5,717	-0.57	27,600	-3,603	-0.40	IN
8Z3V4D		29,487	-3,068	-0.31	29,611	-1,592	-0.18	IN
BL4A2D		29,867	-2,688	-0.27	30,343	-860	-0.10	SH
CDRKQC	*	45,233	12,678	1.27	32,767	1,564	0.18	LI
GW6X4A		30,574	-1,981	-0.20	29,307	-1,895	-0.21	MT
J989LG		25,170	-7,385	-0.74	24,110	-7,093	-0.80	TO
JNHPU4		24,820	-7,735	-0.77	24,458	-6,745	-0.76	SH
LFKURP		29,306	-3,249	-0.32	29,741	-1,462	-0.16	IM
QQ4YN4	*	59,829	27,273	2.73	59,494	28,291	3.17	WZ
RC3R48		27,782	-4,773	-0.48	27,563	-3,639	-0.41	MT
RHNMZ4		23,785	-8,771	-0.88	24,070	-7,133	-0.80	IN
UNRYHM		42,787	10,231	1.02	37,710	6,507	0.73	WZ
W7KJAR		29,001	-3,555	-0.36	28,519	-2,683	-0.30	IN

Summary Statistics

	Sample B85	Sample B86
Grand Means	32,555.4 psi	31,202.9 psi
Stnd Dev Btwn Labs	10,005.2 psi	8,920.1 psi

Statistics based on 14 of 14 reporting participants

Sample B85: LDPE & Sample B86: LDPE

Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
SH	Shimadzu	TO	Tinius Olsen
WZ	Zwick		



Plastics Interlaboratory Testing Program

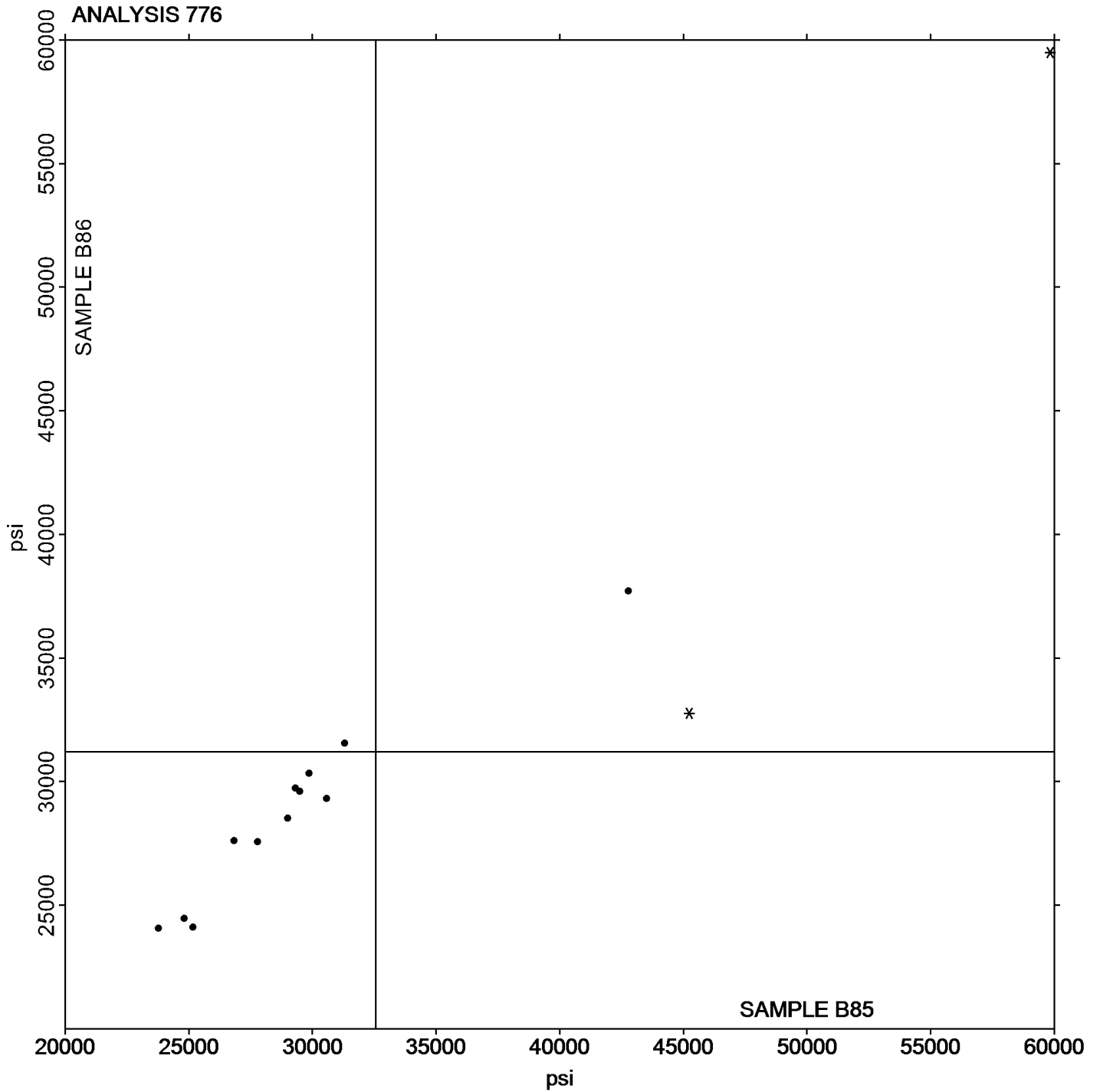
Report #123

Analysis 776

3rd Qtr 2022

Secant Modulus at 2% Strain - psi

Grand Mean Sample B85: 32,555.36 psi Grand Mean Sample B86: 31,202.86 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 780

3rd Qtr 2022

Coefficient of Static Friction

WebCode	Data Flag	Sample P85			Sample P86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2V23Z8		0.1908	0.0297	0.59	0.1726	-0.0129	-0.30	IG
3PA2FK		0.1358	-0.0253	-0.50	0.1612	-0.0243	-0.56	LI
6B4MA8		0.0720	-0.0891	-1.77	0.1320	-0.0535	-1.24	TH
8Z3V4D		0.1474	-0.0137	-0.27	0.1904	0.0049	0.11	TH
BL4A2D		0.1816	0.0205	0.41	0.2018	0.0163	0.38	SA
GMZNY7		0.1342	-0.0269	-0.53	0.1242	-0.0612	-1.42	XX
GW6X4A		0.1922	0.0311	0.62	0.1718	-0.0137	-0.32	MI
J36WR6		0.1674	0.0063	0.13	0.2010	0.0155	0.36	MS
J989LG		0.1376	-0.0235	-0.47	0.1338	-0.0517	-1.20	RD
LFKURP		0.1920	0.0309	0.61	0.1980	0.0125	0.29	MS
LVRVJ7		0.1556	-0.0055	-0.11	0.1974	0.0119	0.28	DY
MDBYT6		0.2540	0.0929	1.84	0.2482	0.0627	1.45	IG
PNYXZY		0.2090	0.0479	0.95	0.2602	0.0747	1.73	IS
QDHFE8		0.2600	0.0989	1.96	0.2808	0.0953	2.21	TH
UNRYHM		0.1280	-0.0331	-0.66	0.1700	-0.0155	-0.36	SA
VK6WWY		0.0848	-0.0763	-1.51	0.1498	-0.0357	-0.83	IS
W7KJAR		0.1356	-0.0255	-0.51	0.1646	-0.0209	-0.48	TM
WZUBPX		0.1214	-0.0397	-0.79	0.1806	-0.0049	-0.11	TN

Summary Statistics		
	Sample P85	Sample P86
Grand Means	0.16107 COF	0.18547 COF
Std Dev Btwn Labs	0.05040 COF	0.04314 COF
Statistics based on 18 of 18 reporting participants		

Sample P85: LDPE & Sample P86: LDPE

Key to Instrument Codes Reported by Participants

DY	Dynisco Model D1055	IG	Instron
IS	Instron 5000 Series	LI	Lloyd Instruments
MI	MTS Insight	MS	MTS
RD	RDM CF	SA	Shimadzu Autograph
TH	Thwing Albert Friction/Peel Tester Model 225-1	TM	TMI Slip and Friction Tester
TN	TMI #32-06	XX	Instrument make/model not specified by lab



Plastics Interlaboratory Testing Program

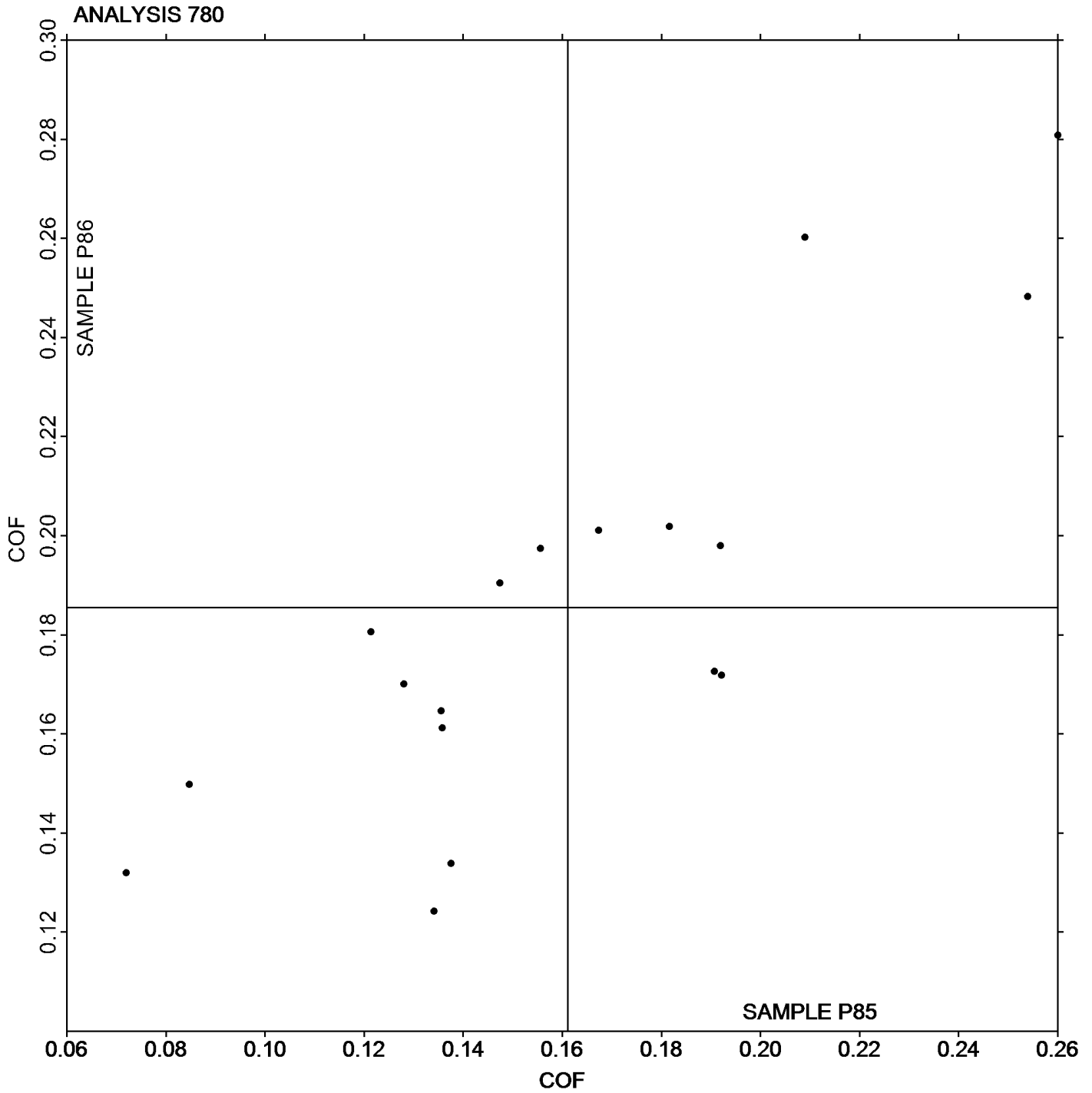
Analysis 780

Coefficient of Static Friction

Report #123

3rd Qtr 2022

Grand Mean Sample P85: 0.16107 COF Grand Mean Sample P86: 0.18547 COF



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 781

3rd Qtr 2022

Coefficient of Kinetic Friction

WebCode	Data Flag	Sample P85			Sample P86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2V23Z8		0.1007	-0.0153	-0.32	0.1409	-0.0075	-0.20	IG
3PA2FK		0.0694	-0.0466	-0.97	0.1008	-0.0476	-1.25	XX
6B4MA8		0.0620	-0.0540	-1.12	0.1160	-0.0324	-0.85	TH
8Z3V4D		0.1250	0.0090	0.19	0.1730	0.0246	0.64	TH
BL4A2D		0.0982	-0.0178	-0.37	0.1296	-0.0189	-0.49	SA
GMZNY7		0.1627	0.0467	0.97	0.1302	-0.0182	-0.48	XX
GW6X4A		0.0796	-0.0364	-0.76	0.1150	-0.0334	-0.88	MI
J36WR6		0.1334	0.0174	0.36	0.1700	0.0216	0.57	MS
J989LG		0.1276	0.0116	0.24	0.1236	-0.0248	-0.65	RD
LFKURP		0.1720	0.0560	1.16	0.1980	0.0496	1.30	MS
LVRVJ7		0.1182	0.0022	0.05	0.1658	0.0174	0.46	DY
MDBYT6		0.2122	0.0962	2.00	0.2152	0.0668	1.75	IG
PNYXZY		0.1318	0.0158	0.33	0.1970	0.0486	1.27	IS
QDHF8		0.2102	0.0942	1.96	0.2178	0.0694	1.82	TH
UNRYHM		0.0660	-0.0500	-1.04	0.1240	-0.0244	-0.64	SA
VK6WWY		0.0790	-0.0370	-0.77	0.1108	-0.0376	-0.99	IS
W7KJAR		0.0652	-0.0508	-1.06	0.1144	-0.0340	-0.89	TM
WZUBPX		0.0750	-0.0410	-0.85	0.1296	-0.0188	-0.49	TN

Summary Statistics

	Sample P85	Sample P86
Grand Means	0.11601 COF	0.14843 COF
Std Dev Btwn Labs	0.04809 COF	0.03818 COF

Statistics based on 18 of 18 reporting participants

Sample P85: LDPE & Sample P86: LDPE

Key to Instrument Codes Reported by Participants

DY	Dynisco Model D1055	IG	Instron
IS	Instron 5000 Series	MI	MTS Insight
MS	MTS	RD	RDM CF
SA	Shimadzu Autograph	TH	Thwing Albert Friction/Peel Tester Model 225-1
TM	TMI Slip and Friction Tester	TN	TMI #32-06
XX	Instrument make/model not specified by lab		



Plastics Interlaboratory Testing Program

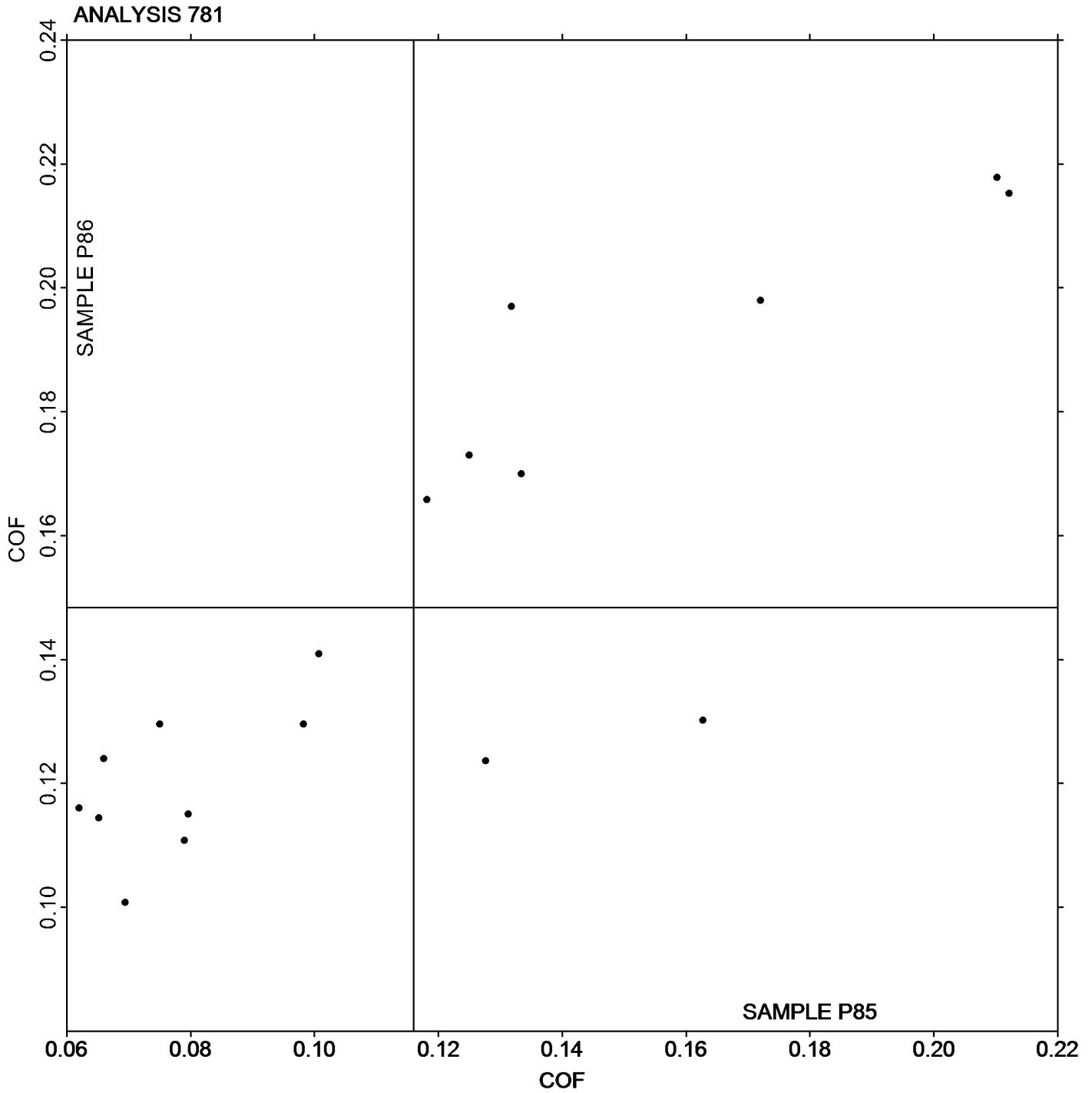
Analysis 781

Coefficient of Kinetic Friction

Report #123

3rd Qtr 2022

Grand Mean Sample P85: 0.11601 COF Grand Mean Sample P86: 0.14843 COF



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 782

3rd Qtr 2022

Tear Resistance of Films

WebCode	Data Flag	Sample Q85			Sample Q86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		294.1	-23.2	-0.65	396.3	-16.6	-0.20	SZ
6B4MA8		356.2	38.8	1.08	420.2	7.2	0.09	EM
8Z3V4D		282.9	-34.4	-0.96	315.8	-97.1	-1.17	TE
BL4A2D		323.2	5.9	0.16	330.8	-82.1	-0.99	TE
GW6X4A		283.3	-34.0	-0.95	342.3	-70.6	-0.85	TE
LFKURP		347.7	30.4	0.85	439.7	26.7	0.32	EM
LVRVJ7		382.9	65.6	1.83	603.8	190.9	2.31	TA
RC3R48		316.3	-1.0	-0.03	419.1	6.2	0.07	TA
UNRYHM		273.7	-43.6	-1.22	396.5	-16.5	-0.20	LO
W7KJAR		312.9	-4.4	-0.12	464.9	52.0	0.63	TM

Summary Statistics

	Sample Q85	Sample Q86
Grand Means	317.31 grams-force	412.94 grams-force
Std Dev Btwn Labs	35.86 grams-force	82.76 grams-force

Statistics based on 10 of 10 reporting participants

Sample Q85: LDPE & Sample Q86: LDPE

Key to Instrument Codes Reported by Participants

EM	Elmendorf Tear Tester	LO	Lorentzen & Wettre Model II
SZ	Textest FX 3700	TA	Thwing-Albert
TE	Thwing-Albert Pro Tear	TM	TMI No. 83-1100



Plastics Interlaboratory Testing Program

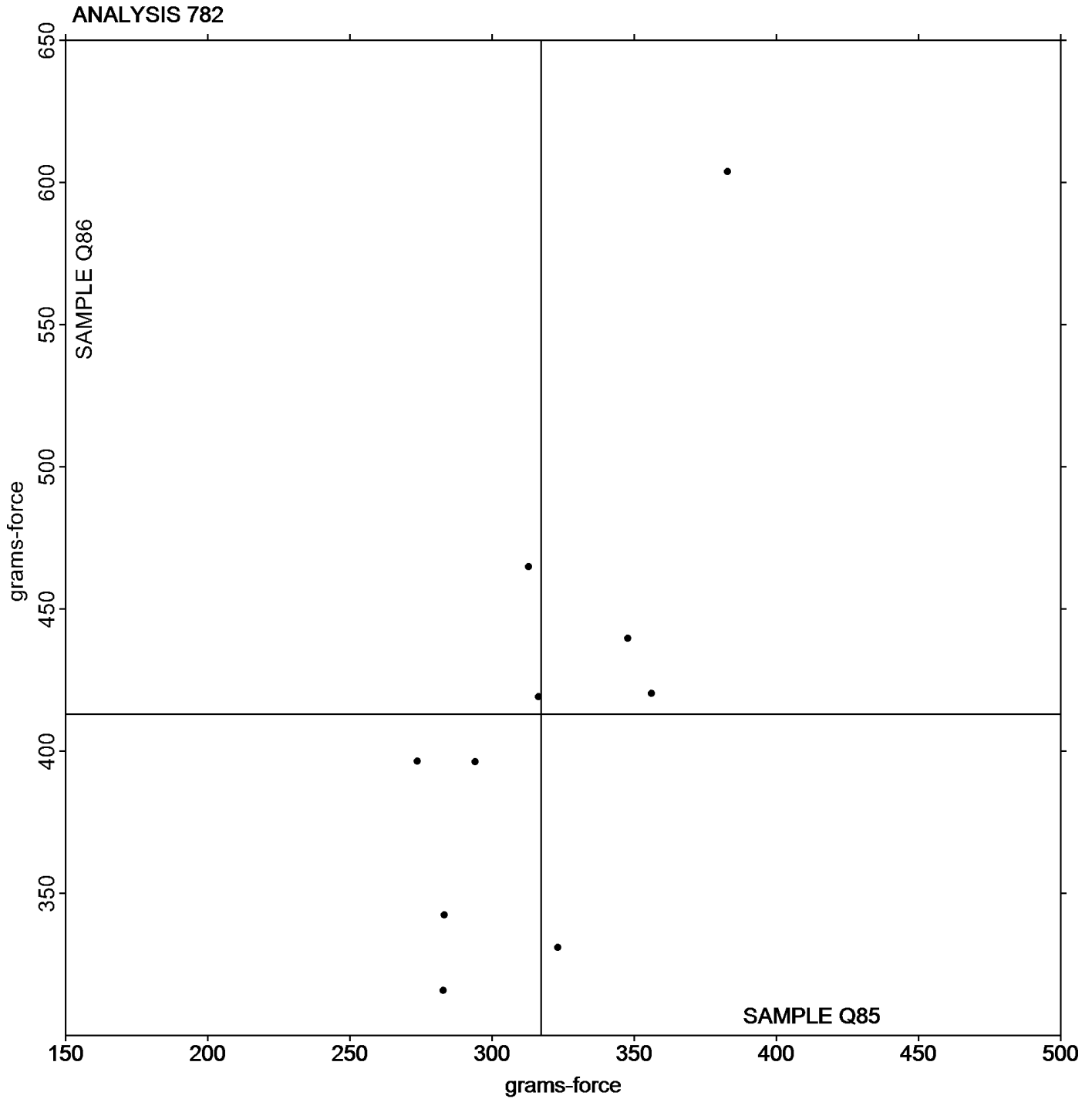
Report #123

Analysis 782

3rd Qtr 2022

Tear Resistance of Films

Grand Mean Sample Q85: 317.31 grams-force Grand Mean Sample Q86: 412.94 grams-force



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



Plastics Interlaboratory Testing Program

Report #123

Analysis 785

3rd Qtr 2022

Percent Haze of Film

WebCode	Data Flag	Sample D85			Sample D86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		11.213	-0.541	-0.88	21.163	1.091	1.01	BJ
3AJ8TL		11.253	-0.501	-0.81	20.524	0.452	0.42	HL
6B4MA8		13.000	1.246	2.02	21.188	1.116	1.04	BJ
7CXYGK		10.975	-0.779	-1.26	19.403	-0.669	-0.62	HL
7GQYVF		12.251	0.498	0.81	21.719	1.647	1.53	XR
7TXZ26		10.738	-1.016	-1.65	18.025	-2.046	-1.90	HL
897C9N		12.069	0.315	0.51	20.100	0.029	0.03	BJ
8FWBCJ	*	13.126	1.373	2.23	23.220	3.149	2.93	XR
8J8J7A		11.008	-0.746	-1.21	19.359	-0.713	-0.66	XR
8YFQ26		11.688	-0.066	-0.11	19.025	-1.046	-0.97	BJ
8Z3V4D		11.513	-0.241	-0.39	19.413	-0.659	-0.61	BJ
BL4A2D		11.788	0.034	0.06	19.100	-0.971	-0.90	BJ
FT8WM2		10.641	-1.112	-1.80	18.931	-1.140	-1.06	XX
GW6X4A		11.713	-0.041	-0.07	19.388	-0.684	-0.64	BJ
JPK2Z		11.890	0.136	0.22	19.681	-0.390	-0.36	BJ
JK62ZY		11.400	-0.354	-0.57	19.538	-0.534	-0.50	BJ
LFKURP	X	15.271	3.518	5.70	19.959	-0.113	-0.10	BJ
LVRVJ7		12.256	0.503	0.81	21.750	1.679	1.56	XR
QRFF2G		12.050	0.296	0.48	19.988	-0.084	-0.08	BJ
RBPVX3		11.113	-0.641	-1.04	19.838	-0.234	-0.22	BJ
RLLM6M		11.888	0.134	0.22	20.000	-0.071	-0.07	BJ
ULEHXU		12.273	0.519	0.84	19.458	-0.614	-0.57	BJ
V28P9Z		11.500	-0.254	-0.41	19.888	-0.184	-0.17	BJ
VK6WWY		12.150	0.396	0.64	20.388	0.316	0.29	BJ
VPE9HE		12.188	0.434	0.70	19.813	-0.259	-0.24	BJ
ZDU27M		11.875	0.121	0.20	20.438	0.366	0.34	BJ
ZZZU2Q		12.038	0.284	0.46	20.525	0.454	0.42	BJ

Summary Statistics		
	Sample D85	Sample D86
Grand Means	11.7535 Percent	20.0714 Percent
Std Dev Btwn Labs	0.6169 Percent	1.0750 Percent
Statistics based on 26 of 27 reporting participants		

Sample D85: LDPE & Sample D86: LDPE



Plastics Interlaboratory Testing Program

Analysis 785

Percent Haze of Film

Report #123

3rd Qtr 2022

Comments on Assigned Data Flags for Test #785

LFKURP (X) - Data for sample D85 are high. Inconsistent within the determinations of both samples.

Key to Instrument Codes Reported by Participants

BJ	BYK-Gardner Haze-Gard Plus/i	HL	Hunterlab Ultrascan
XR	X-Rite Spectrocolorimeter (any model)	XX	Instrument make/model not specified by lab



Plastics Interlaboratory Testing Program

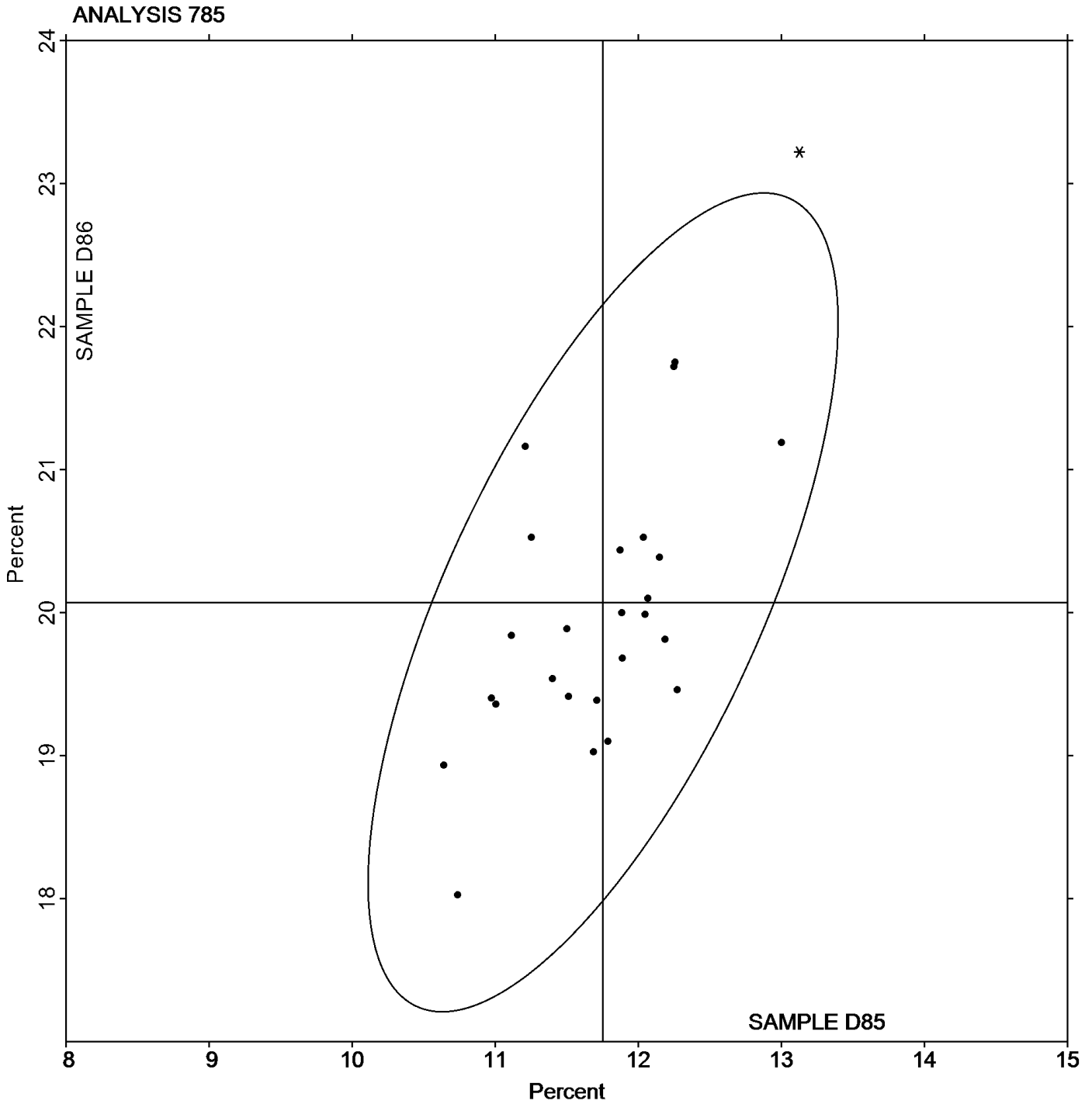
Analysis 785

Percent Haze of Film

Report #123

3rd Qtr 2022

Grand Mean Sample D85: 11.754 Percent Grand Mean Sample D86: 20.071 Percent





Plastics Interlaboratory Testing Program

Report #123

Analysis 786

3rd Qtr 2022

Total Luminous transmittance of film

WebCode	Data Flag	Sample D85			Sample D86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2BCNN4		92.29	-0.20	-0.19	91.89	-0.57	-0.50	BJ
3AJ8TL		90.94	-1.55	-1.46	90.60	-1.85	-1.63	HL
6B4MA8		91.81	-0.67	-0.63	91.94	-0.52	-0.45	BJ
7CXYGK		91.03	-1.46	-1.38	90.44	-2.01	-1.76	HL
7GQYVF		92.37	-0.11	-0.11	92.91	0.46	0.40	XR
7TXZ26		90.94	-1.55	-1.46	90.54	-1.92	-1.68	HL
897C9N		93.59	1.10	1.04	93.62	1.16	1.02	BJ
8FWBCJ		91.90	-0.59	-0.56	92.33	-0.12	-0.11	XR
8J8J7A		91.50	-0.98	-0.93	91.53	-0.93	-0.81	XR
8YFQ26		93.66	1.18	1.11	93.69	1.23	1.08	BJ
8Z3V4D		90.26	-2.22	-2.10	90.23	-2.23	-1.95	BJ
BL4A2D		92.96	0.48	0.45	92.86	0.41	0.36	BJ
FT8WM2		91.94	-0.55	-0.52	92.58	0.12	0.11	XX
GW6X4A		93.15	0.67	0.63	93.13	0.67	0.59	BJ
JPK2Z		93.25	0.76	0.72	93.16	0.71	0.62	BJ
JK62ZY		93.54	1.05	1.00	93.39	0.93	0.82	BJ
LFKURP		92.56	0.08	0.07	92.95	0.50	0.43	BJ
QDHFE8		92.35	-0.13	-0.13	91.91	-0.54	-0.47	BH
QRFF2G		92.69	0.20	0.19	93.06	0.61	0.53	BJ
RBPVX3		93.64	1.15	1.09	93.80	1.35	1.18	BJ
RLLM6M		93.61	1.13	1.07	93.65	1.20	1.05	BJ
ULEHXU		92.78	0.30	0.28	92.48	0.03	0.02	BJ
V28P9Z		93.33	0.84	0.80	93.19	0.73	0.64	BJ
VK6WWY		94.04	1.55	1.47	94.05	1.60	1.40	BJ
VPE9HE		92.80	0.32	0.30	92.63	0.17	0.15	BJ
ZDU27M		93.46	0.98	0.93	93.13	0.67	0.59	BJ
ZZZU2Q		90.69	-1.80	-1.70	90.60	-1.85	-1.63	BJ

Summary Statistics		
	Sample D85	Sample D86
Grand Means	92.484 Percent	92.454 Percent
Std Dev Btwn Labs	1.058 Percent	1.141 Percent
Statistics based on 27 of 27 reporting participants		

Sample D85: LDPE & Sample D86: LDPE



Plastics Interlaboratory Testing Program

Analysis 786

Total Luminous transmittance of film

Report #123

3rd Qtr 2022

Key to Instrument Codes Reported by Participants

BH BYK-Gardner/Pacific Scientific Model XL-211

BJ BYK-Gardner Haze-Gard Plus/i

HL Hunterlab Ultrascan XE

XR X-Rite Spectrocolorimeter (any model)

XX Instrument make/model not specified by lab



Plastics Interlaboratory Testing Program

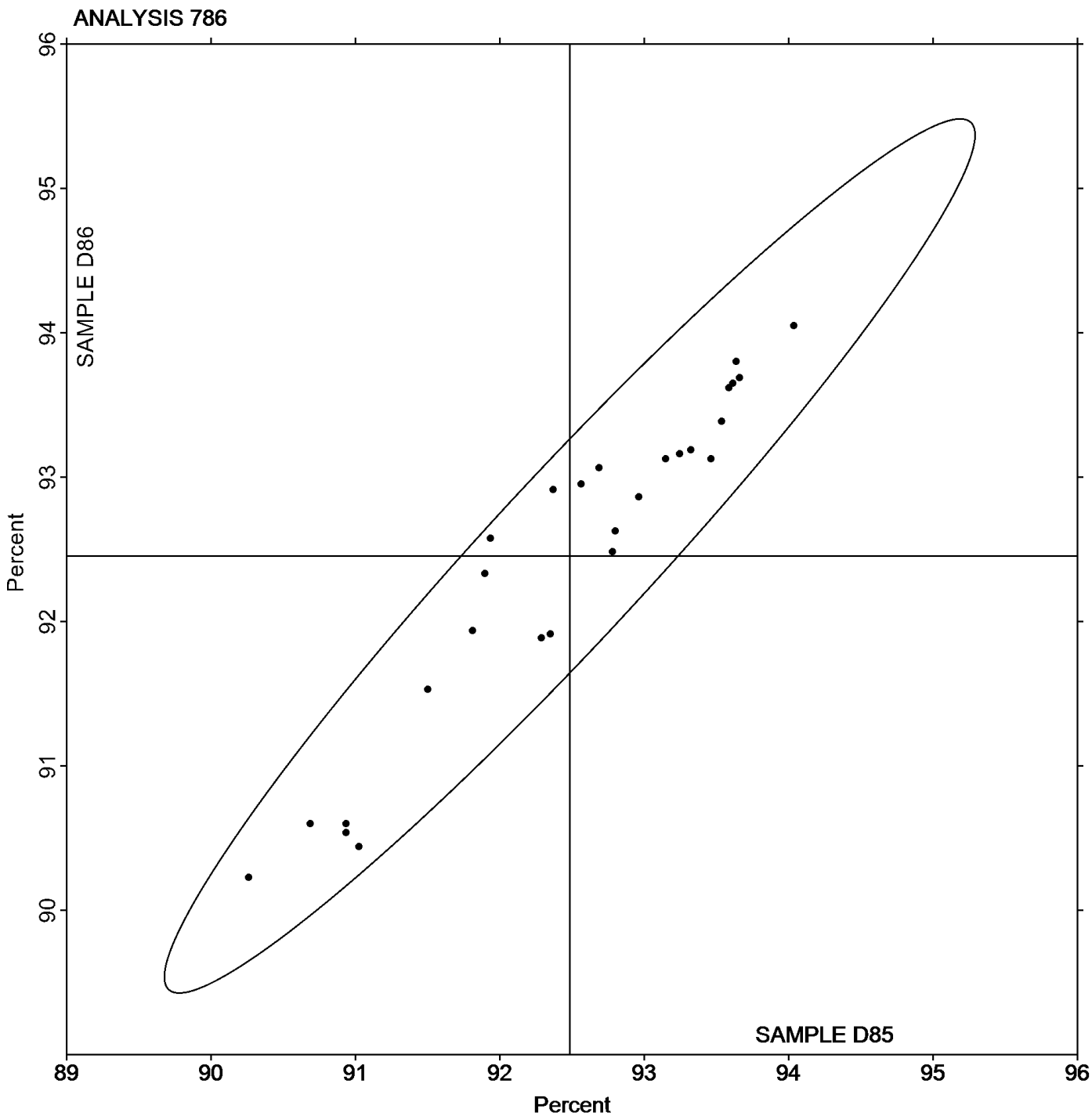
Analysis 786

Total Luminous transmittance of film

Report #123

3rd Qtr 2022

Grand Mean Sample D85: 92.484 Percent Grand Mean Sample D86: 92.454 Percent





Plastics Interlaboratory Testing Program

Report #123

Analysis 790

3rd Qtr 2022

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S85			Sample S86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3E9MHT		1.97	0.04	0.19	1.97	0.01	0.06	TO
3MAU8U		1.95	0.01	0.05	1.97	0.01	0.07	TO
4PM7BN		1.91	-0.03	-0.15	1.97	0.01	0.06	TM
6YP8A9		2.15	0.21	1.08	2.12	0.16	0.78	TO
6ZNQBV		1.91	-0.03	-0.13	1.89	-0.07	-0.32	TM
7CXYGK		2.12	0.18	0.92	2.08	0.12	0.59	TO
8AME7P		1.88	-0.05	-0.27	1.93	-0.03	-0.13	TO
8GKXF8		1.84	-0.09	-0.47	1.84	-0.12	-0.58	TO
8R4CJA		2.10	0.16	0.82	1.99	0.03	0.16	TM
8Z3V4D		1.85	-0.08	-0.42	1.90	-0.06	-0.31	CE
9JH48H		1.70	-0.24	-1.21	1.87	-0.09	-0.45	TO
AEMJPK		1.84	-0.09	-0.47	1.84	-0.12	-0.56	WZ
AGX8PJ		2.05	0.11	0.56	2.02	0.06	0.27	BA
C9PTAY	*	2.36	0.42	2.11	2.52	0.56	2.71	XX
CYM7L9		1.94	0.00	0.00	1.94	-0.02	-0.08	CS
EAHE2G		1.89	-0.04	-0.22	2.04	0.08	0.41	XX
EGX6GF	X	3.15	1.22	6.12	2.42	0.46	2.20	TO
EPCLFH	*	2.40	0.46	2.34	2.57	0.61	2.91	RR
FQ2EN7		1.83	-0.11	-0.56	1.97	0.01	0.03	XX
GW6X4A	X	2.17	0.23	1.16	1.67	-0.29	-1.41	TO
JPK2Z		1.83	-0.10	-0.52	1.81	-0.15	-0.74	TY
K8BZ6A		1.84	-0.09	-0.48	1.87	-0.09	-0.43	XX
LAV83C		2.22	0.28	1.41	2.24	0.28	1.36	TO
LEAR7Q		1.66	-0.28	-1.40	1.67	-0.29	-1.41	TO
LFY3WJ		1.88	-0.06	-0.30	1.88	-0.08	-0.39	TO
MT3T8Q		1.78	-0.16	-0.79	1.69	-0.27	-1.32	CE
NUW6E4		1.91	-0.03	-0.13	1.88	-0.08	-0.40	TO
PCATG3		1.96	0.02	0.11	1.94	-0.02	-0.10	WZ
PV6HDW		1.77	-0.16	-0.83	1.80	-0.16	-0.75	CE
PVX3YP	X	0.48	-1.46	-7.33	0.51	-1.45	-6.98	CS
PXR64Y		1.91	-0.03	-0.15	1.93	-0.03	-0.13	CE
QM9YV2		1.81	-0.12	-0.63	1.83	-0.13	-0.62	TO
QYVCN3		1.72	-0.22	-1.10	1.77	-0.19	-0.93	TO
RC3R48		1.99	0.06	0.28	1.99	0.03	0.14	TM
RT9TYT	*	2.46	0.52	2.64	2.36	0.40	1.92	TO



Plastics Interlaboratory Testing Program

Report #123

Analysis 790

3rd Qtr 2022

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S85			Sample S86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
V986ZU	X	2.30	0.37	1.84	2.70	0.74	3.54	TO
VPE9HE		1.74	-0.20	-1.01	1.77	-0.19	-0.90	CE
WZUBPX		2.13	0.20	0.99	2.16	0.20	0.96	TM
XBUEB8		1.95	0.01	0.05	1.96	0.00	0.02	TO
Y7AVJN		2.32	0.38	1.93	2.36	0.40	1.90	CE
YUZZKR		1.78	-0.15	-0.77	1.90	-0.06	-0.29	TO
YW8D8K		1.93	-0.01	-0.04	1.91	-0.05	-0.25	DS
YXZBFR		1.61	-0.32	-1.63	1.58	-0.38	-1.81	TO
ZDP2QE		1.69	-0.25	-1.26	1.69	-0.27	-1.28	WZ
ZMA8MH		1.82	-0.12	-0.61	1.87	-0.09	-0.45	CE
ZZZU2Q		1.95	0.02	0.08	2.03	0.07	0.32	WZ

Summary Statistics		
	Sample S85	Sample S86
Grand Means	1.937 ft.lbf/in	1.960 ft.lbf/in
Stnd Dev Btwn Labs	0.198 ft.lbf/in	0.208 ft.lbf/in
Statistics based on 42 of 46 reporting participants		

Sample S85: HIPS & Sample S86: HIPS

Comments on Assigned Data Flags for Test #790

- GW6X4A (X) - Inconsistent in testing between samples.
- V986ZU (X) - Data for sample S86 are high.
- EGX6GF (X) - Data for sample S85 are high. Inconsistent within the determinations of sample S86.
- PVX3YP (X) - Data for both samples are low.

Key to Instrument Codes Reported by Participants

BA Baldwin	CE Ceast
CS CSI	DS Dynisco
RR Ray-Ran Polymer Testing Equipment	TM TMI
TO Tinius Olsen	TY Toyoseiki
WZ Zwick	XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

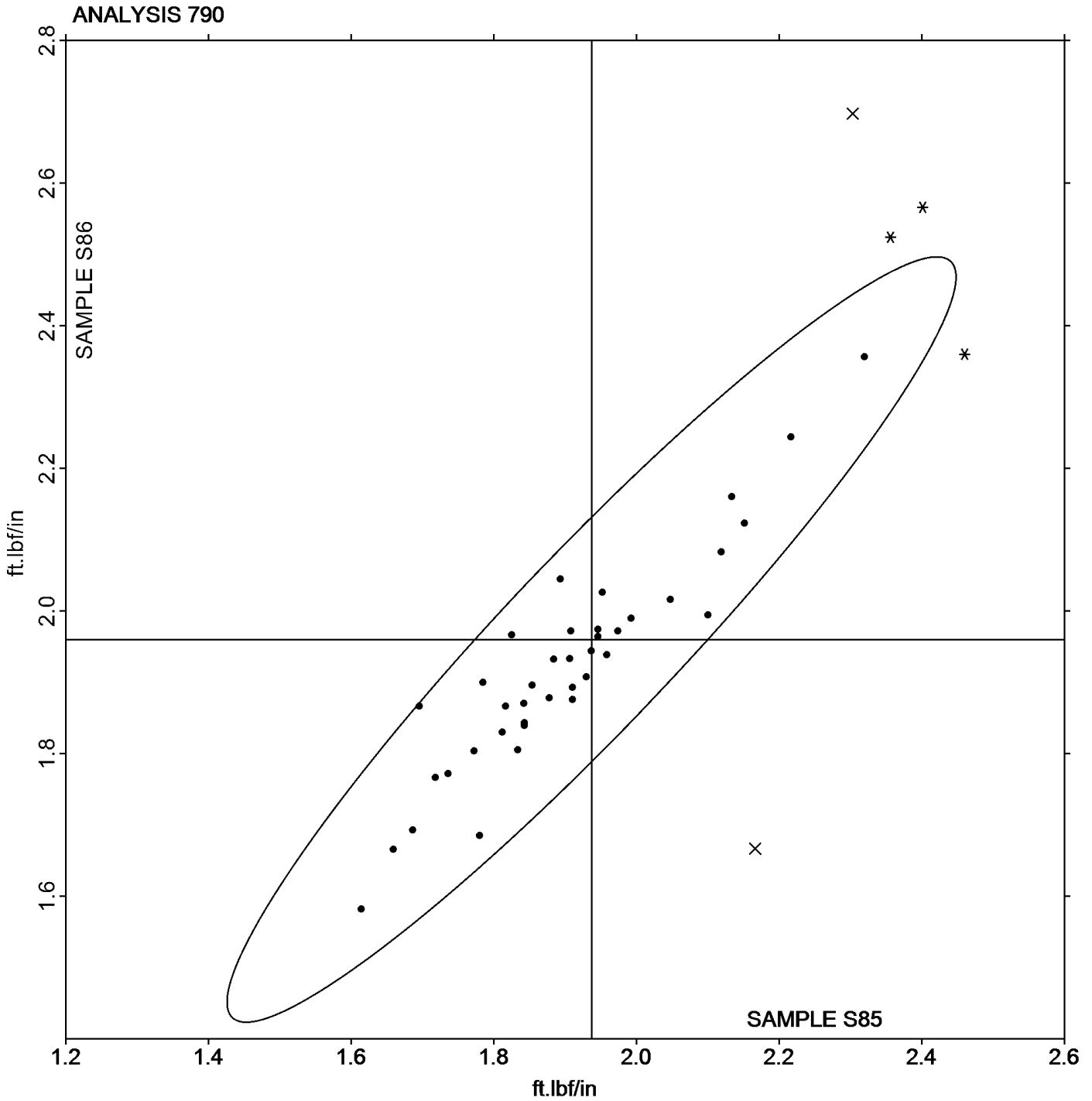
Analysis 790

Notched Izod Impact - ft.lbf/in

Report #123

3rd Qtr 2022

Grand Mean Sample S85: 1.9369 ft.lbf/in Grand Mean Sample S86: 1.9599 ft.lbf/in





Plastics Interlaboratory Testing Program

Report #123

Analysis 791

3rd Qtr 2022

Notched Izod Impact - kJ/m²

WebCode	Data Flag	Sample Z85			Sample Z86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26KX49		10.50	1.04	1.58	10.17	0.75	1.42	TO
2BBDTF		10.58	1.12	1.70	10.02	0.60	1.13	CE
3AC8NB		9.96	0.50	0.76	10.12	0.70	1.33	WZ
3AJ8TL		9.13	-0.33	-0.50	9.16	-0.27	-0.51	TM
3BT3TR		10.21	0.75	1.15	9.77	0.35	0.67	TM
3ZEXNG		9.60	0.14	0.21	9.61	0.19	0.36	CE
8GJ86H		8.23	-1.23	-1.87	8.82	-0.61	-1.15	TM
8YLZ2H		9.63	0.17	0.25	9.47	0.05	0.09	CE
8Z3V4D		9.08	-0.38	-0.58	9.36	-0.06	-0.11	CE
9G2EBZ		8.48	-0.98	-1.49	8.53	-0.89	-1.70	TO
9TRB3Q		10.57	1.11	1.69	10.22	0.80	1.52	CE
AEMJPK		9.48	0.02	0.02	9.53	0.11	0.20	WZ
BG9HTG		9.43	-0.03	-0.05	9.49	0.07	0.13	CE
CN7LZQ		9.09	-0.37	-0.56	9.19	-0.23	-0.44	IN
DLD4JB		9.94	0.48	0.73	9.64	0.21	0.41	CE
FQ2EN7		8.65	-0.81	-1.23	8.71	-0.71	-1.35	XX
FRJAJE		10.33	0.87	1.32	9.55	0.12	0.23	XX
GG9NCX		9.12	-0.34	-0.52	9.18	-0.25	-0.47	TO
GW6X4A		9.27	-0.19	-0.30	8.97	-0.45	-0.86	XX
HRBABA		9.73	0.27	0.41	9.77	0.34	0.65	CE
JPK2Z		9.40	-0.06	-0.10	9.32	-0.10	-0.19	XX
JYHB23		9.00	-0.46	-0.70	8.85	-0.57	-1.09	CE
K7FA6W		8.11	-1.35	-2.06	8.31	-1.11	-2.11	CE
K7MC2W		8.95	-0.51	-0.77	9.26	-0.17	-0.32	TO
K8BZ6A		8.88	-0.58	-0.88	9.59	0.16	0.31	XX
K8TWMC	*	9.20	-0.26	-0.40	8.39	-1.03	-1.95	XX
LFY3WJ		9.52	0.06	0.10	9.45	0.03	0.06	TO
LXVCGV		10.94	1.48	2.26	10.65	1.23	2.33	CE
P4D3RL		8.79	-0.67	-1.01	8.90	-0.52	-0.99	XX
PCATG3		9.57	0.11	0.16	9.61	0.19	0.36	WZ
PXBW6W		9.23	-0.23	-0.35	9.60	0.17	0.33	CE
QM6L3Y		10.02	0.56	0.85	9.89	0.47	0.89	TO
TXER4R		9.46	0.00	0.00	9.56	0.14	0.26	TO
UCW34R		9.82	0.36	0.55	9.16	-0.27	-0.51	IN
WC336Q		9.11	-0.35	-0.54	9.24	-0.18	-0.35	IN



Plastics Interlaboratory Testing Program

Report #123

Analysis 791

3rd Qtr 2022

Notched Izod Impact - kJ/m²

WebCode	Data Flag	Sample Z85			Sample Z86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YDQFJE		9.07	-0.39	-0.60	9.36	-0.06	-0.11	TO
ZA2GPG		9.98	0.52	0.78	10.22	0.80	1.52	WZ

Summary Statistics			
	Sample Z85		Sample Z86
Grand Means	9.461 kJ/m ²		9.422 kJ/m ²
Std Dev Btwn Labs	0.657 kJ/m ²		0.526 kJ/m ²
Statistics based on 37 of 37 reporting participants			

Sample Z85: HIPS & Sample Z86: HIPS

Key to Instrument Codes Reported by Participants

- | | | | |
|----|-------|----|--|
| CE | Ceast | IN | Instron |
| TM | TMI | TO | Tinius Olsen |
| WZ | Zwick | XX | Instrument manufacturer not specified by lab |



Plastics Interlaboratory Testing Program

Report #123

Analysis 792

3rd Qtr 2022

Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M85			Sample M86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
24FMRJ		9.28	-0.09	-0.21	9.34	-0.05	-0.14	TO
26KX49		9.96	0.59	1.33	9.98	0.59	1.54	TO
2BBDTF		9.99	0.62	1.39	10.04	0.65	1.69	CE
3AC8NB		9.90	0.53	1.19	9.82	0.43	1.11	WZ
3AJ8TL		9.09	-0.28	-0.64	9.11	-0.29	-0.75	TM
3ZEXNG		9.46	0.08	0.19	9.86	0.47	1.22	CE
42Z9UZ		9.36	-0.01	-0.03	9.17	-0.22	-0.57	XX
7TK66D		9.18	-0.19	-0.43	9.15	-0.24	-0.64	TO
8GJ86H	X	8.68	-0.70	-1.58	8.04	-1.35	-3.53	TM
8YLZ2H		9.21	-0.17	-0.38	9.39	0.00	0.00	CE
9G2EBZ		9.41	0.04	0.08	9.29	-0.10	-0.27	TO
9TRB3Q		9.40	0.03	0.06	9.36	-0.03	-0.09	IN
AEMJPK		9.72	0.34	0.77	9.61	0.21	0.56	WZ
BG9HTG	*	8.13	-1.24	-2.81	8.42	-0.97	-2.54	CE
C8YHH7		9.17	-0.20	-0.45	9.10	-0.29	-0.76	WZ
C9PTAY	X	11.56	2.19	4.96	9.94	0.55	1.43	XX
CN7LZQ		9.64	0.26	0.59	9.40	0.01	0.02	IN
DQPYHT	X	9.27	-0.10	-0.23	10.21	0.82	2.14	PO
FQ2EN7		8.38	-1.00	-2.26	8.89	-0.51	-1.32	XX
FRJAJE	X	8.25	-1.13	-2.56	8.00	-1.39	-3.63	TM
GG9NCX		9.41	0.04	0.09	9.38	-0.01	-0.03	TO
GW6X4A		9.22	-0.15	-0.35	9.27	-0.12	-0.33	XX
HRBABA		9.39	0.02	0.04	9.44	0.05	0.12	CE
JJPK2Z		9.11	-0.26	-0.59	9.27	-0.13	-0.33	TY
JYHB23		8.97	-0.40	-0.91	9.25	-0.15	-0.38	CE
K7FA6W		8.62	-0.75	-1.70	8.67	-0.72	-1.88	CE
K7MC2W		9.43	0.06	0.13	9.32	-0.08	-0.20	TO
K8BZ6A		8.78	-0.60	-1.35	9.02	-0.38	-0.98	XX
K8TWMC		9.06	-0.32	-0.72	9.46	0.06	0.17	TM
LAV83C		10.29	0.92	2.08	9.80	0.40	1.06	TO
LEAR7Q	X	9.39	0.02	0.04	8.21	-1.19	-3.10	TO
LFKURP		9.43	0.06	0.13	9.83	0.43	1.13	WZ
LFY3WJ		8.79	-0.58	-1.32	8.81	-0.58	-1.52	TO
LXVCGV		9.94	0.56	1.27	10.08	0.69	1.80	CE
M6CLJ4		9.70	0.33	0.74	9.24	-0.15	-0.40	WZ



Plastics Interlaboratory Testing Program

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Analysis 792

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Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M85			Sample M86			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
MXBQLJ		10.18	0.81	1.83	9.78	0.38	1.00	WZ
P4D3RL		9.17	-0.21	-0.47	9.06	-0.33	-0.86	WZ
P7J2RF		9.40	0.02	0.05	9.71	0.32	0.83	WZ
P7ZNG3		9.24	-0.13	-0.30	9.14	-0.25	-0.66	CE
P977EY		9.08	-0.29	-0.67	8.93	-0.47	-1.22	CE
PCATG3		9.39	0.01	0.03	9.15	-0.24	-0.63	WZ
PV6HDW		9.50	0.12	0.28	9.27	-0.13	-0.33	CE
QE73HV		9.08	-0.30	-0.67	9.49	0.10	0.25	CE
QM6L3Y		9.69	0.31	0.71	9.73	0.34	0.88	TO
QTP8UD		9.53	0.15	0.34	9.53	0.14	0.36	CE
QYVCN3		9.40	0.03	0.07	9.38	-0.01	-0.03	TO
WXNYRW		9.45	0.07	0.17	9.15	-0.24	-0.64	CE
X6DGGJ		9.82	0.44	1.00	9.95	0.56	1.46	WZ
YDQFJE		9.38	0.00	0.00	9.22	-0.17	-0.44	TO
ZA2GPG		9.11	-0.26	-0.59	9.28	-0.11	-0.30	WZ
ZDP2QE		9.47	0.09	0.21	9.65	0.25	0.66	WZ
ZZZU2Q		10.30	0.92	2.09	10.29	0.89	2.33	WZ

Summary Statistics		
	Sample M85	Sample M86
Grand Means	9.375 kJ/m ²	9.393 kJ/m ²
Std Dev Btwn Labs	0.441 kJ/m ²	0.383 kJ/m ²
Statistics based on 47 of 52 reporting participants		

Sample M85: HIPS & Sample M86: HIPS

Comments on Assigned Data Flags for Test #792

- FRJAJE (X) - Data for sample M86 are low.
- LEAR7Q (X) - Data for sample M86 are low. Inconsistent within the determinations of sample M86.
- DQPYHT (X) - Inconsistent in testing between samples.
- C9PTAY (X) - Data for sample M85 are high. Inconsistent within the determinations of sample M86.
- 8GJ86H (X) - Data for sample M86 are low. Inconsistent within the determinations of sample M85.



Plastics Interlaboratory Testing Program

Analysis 792

Notched Charpy Impact - kJ/m^2

Report #123

3rd Qtr 2022

Key to Instrument Codes Reported by Participants

CE Ceast

PO POE

TO Tinius Olsen

WZ Zwick

IN Instron

TM TMI

TY Toyoseiki

XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

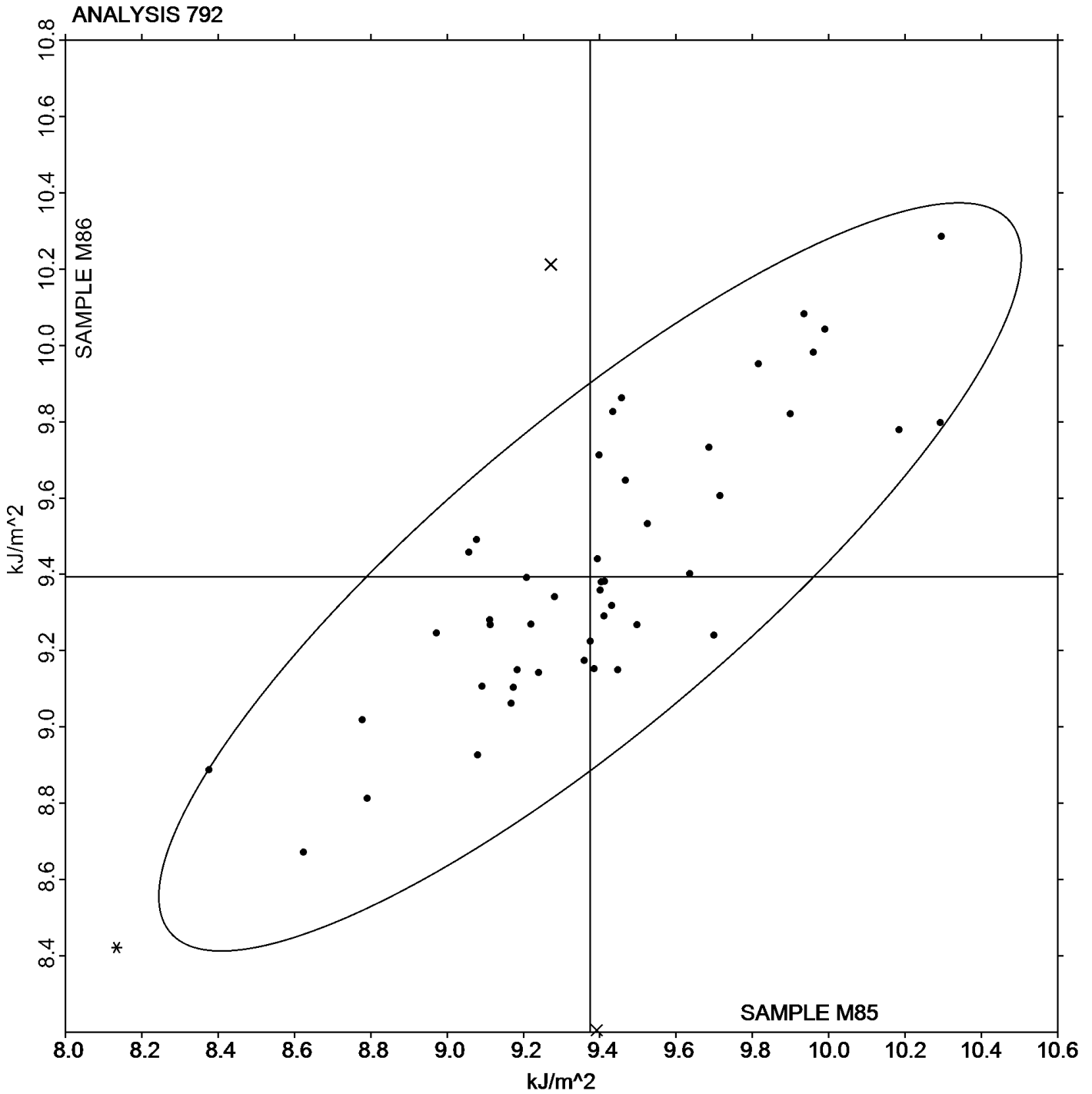
Report #123

Analysis 792

3rd Qtr 2022

Notched Charpy Impact - kJ/m^2

Grand Mean Sample M85: 9.3746 kJ/m^2 Grand Mean Sample M86: 9.3932 kJ/m^2



-End of Report-