

Plastics Interlaboratory Testing Program

Web Summary Report #122, 2nd Qtr 2022

[About CTS and the Plastics Interlaboratory Program](#)

[Key for Web Summary Report](#)

[Results Summary for this Report](#)

Analysis Analysis Name

[704 Tensile Stress at Yield, Plastic Samples](#)
[705 Tensile Stress at Break, Plastic Samples](#)
[706 Percent Elongation at Yield, Plastic Samples](#)
[708 Modulus of Elasticity, Plastic Samples](#)
[710 Deflection Temp. Under Flexural Load \(1.82 MPa\)](#)
[711 Deflection Temp. Under Flexural Load \(0.455 MPa\)](#)
[712 Temp. of Deflection Under Flexural Load 1.80 MPa](#)
[715 Vicat Softening Temperature \(Rate A\)](#)
[716 Vicat Softening Temperature \(Rate B\)](#)
[718 Specific Gravity](#)
[720 Flexural Modulus](#)
[721 Flexural Stress at 5% Strain](#)
[722 Flexural Stress at Yield](#)
[730 Tensile Stress at Yield, ISO Plastic Samples](#)
[731 Tensile Stress at Break, ISO Plastic Samples](#)
[732 Percent Strain at Yield, ISO Plastic Samples](#)
[734 Modulus of Elasticity, ISO Plastic Samples](#)
[736 Flexural Modulus, ISO Plastic Samples](#)
[737 Flexural Stress at 3.5% Strain](#)
[738 Flexural Stress at Yield](#)
[750 Flow Rates of Thermoplastics \(2.16 kg load\)](#)
[755 Moisture Content of Plastics](#)
[757 Ash Content in Thermoplastics](#)
[758 Thermogravimetric Analysis](#)
[760 DSC Crystallization Temperature](#)

Analysis Analysis Name

[761 DSC Melt Temperature](#)
[762 DSC Enthalpy of Crystallization](#)
[763 DSC Enthalpy of Fusion](#)
[764 DSC Glass Transition Temperature](#)
[765 DSC Crystallization Peak Temperature - Research](#)
[766 DSC Melting Peak Temperature - Research](#)
[767 DSC Heat of Crystallization - Research](#)
[768 DSC Heat of Fusion - Research](#)
[769 DSC Glass Transition Temperature - Research](#)
[770 Tensile Stress at Yield, Film Samples](#)
[771 Tensile Stress at Break, Film Samples](#)
[772 Percent Elongation at Yield, Film Samples](#)
[773 Percent Elongation at Break, Film Samples](#)
[774 Thickness of Film Tensile Samples](#)
[775 Secant Modulus at 1% Strain](#)
[776 Secant Modulus at 2% Strain](#)
[780 Coefficient of Friction: Static](#)
[781 Coefficient of Friction: Kinetic](#)
[782 Tear Resistance of Films](#)
[785 Optical Properties of Films - Percent Haze](#)
[786 Optical Properties of Films: % Transmittance](#)
[790 Notched Izod Impact](#)
[791 Notched Izod Impact \(ISO\)](#)
[792 Notched Charpy Impact, ISO Plastic Samples](#)

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 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 80 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.

For further information contact:

COLLABORATIVE TESTING SERVICES, INC.
21331 Gentry Drive
Sterling, VA 20166
Phone: (571) 434-1925
FAX: (571) 434-1937
e-mail: plastics@cts-interlab.com

Office Hours: 8:00 a.m. - 4:30 p.m. ET

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 #122, 2nd Qtr 2022

Analysis 704 - Tensile Stress at Yield

Material: HIPS	Sample F83	3,482.52	psi	2.79% COV
	Sample F84	3,476.54	psi	2.82% COV

Analysis 705 - Tensile Stress at Break

Material: HIPS	Sample F83	2,741.92	psi	3.48% COV
	Sample F84	2,705.24	psi	2.95% COV

Analysis 706 - Percent Elongation at Yield

Material: HIPS	Sample F83	1.5370	Percent	5.32% COV
	Sample F84	1.5339	Percent	5.65% COV

Analysis 708 - Modulus of Elasticity

Material: HIPS	Sample F83	259.67	ksi	6.66% COV
	Sample F84	259.33	ksi	7.03% COV

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

Material: ABS	Sample E83	81.190	Degrees C	1.56% COV
	Sample E84	81.103	Degrees C	1.63% COV

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

Material: PP	Sample G83	85.848	Degrees C	6.69% COV
	Sample G84	86.371	Degrees C	6.95% COV

Analysis 712 - Temperature of Deflection (1.80 MPa)

Material: ABS/PC	Sample N83	104.28	Degrees C	1.50% COV
	Sample N84	104.37	Degrees C	1.47% COV

Analysis 715 - Vicat Temperature (Rate A)

Material: ABS/PC	Sample H83	137.13	Degrees C	3.44% COV
	Sample H84	136.97	Degrees C	3.46% COV

Analysis 716 - Vicat Temperature (Rate B)

Material: ABS/PC	Sample R83	138.50	Degrees C	3.76% COV
	Sample R84	138.66	Degrees C	3.68% COV

Analysis 718 - Specific Gravity

Material: HIPS	Sample T83	1.0297	sp gr 23/23 C	0.235% COV
	Sample T84	1.0353	sp gr 23/23 C	0.214% COV

Analysis 720 - Flexural Modulus

Material: ABS/PC	Sample J83	335.49	ksi	4.98% COV
	Sample J84	335.06	ksi	5.04% COV

Analysis 721 - Flexural Stress at 5% Strain

Material: ABS/PC	Sample J83	11,673.61	psi	4.54% COV
	Sample J84	11,639.23	psi	4.16% COV

Analysis 722 - Flexural Stress at Yield

Material: ABS/PC	Sample J83	11,865.18	psi	4.98% COV
	Sample J84	11,841.87	psi	4.75% COV

Analysis 730 - Tensile Stress at Yield, ISO Method

Material: ABS/PC	Sample C83	49.552	MPa	1.76% COV
	Sample C84	49.600	MPa	1.84% COV

Analysis 731 - Tensile Stress at Break, ISO Method

Material: ABS/PC	Sample C83	46.381	MPa	5.30% COV
	Sample C84	46.791	MPa	5.44% COV



Plastics Interlaboratory Testing Program

Results Summary for Report #122, 2nd Qtr 2022

Analysis 732 - Strain at Yield, ISO Method

Material: ABS/PC	Sample C83	4.4856	Percent	4.32% COV
	Sample C84	4.4955	Percent	4.39% COV

Analysis 734 - Modulus of Elasticity, ISO Method

Material: ABS/PC	Sample C83	2,225.84	MPa	3.66% COV
	Sample C84	2,218.17	MPa	3.58% COV

Analysis 736 - Flexural Modulus

Material: ABS/PC	Sample K83	2,293.07	MPa	3.91% COV
	Sample K84	2,295.91	MPa	4.18% COV

Analysis 737 - Flexural Stress at 3.5% Strain

Material: ABS/PC	Sample K83	69.974	MPa	3.92% COV
	Sample K84	69.983	MPa	4.03% COV

Analysis 738 - Flexural Stress at Yield

Material: ABS/PC	Sample K83	80.041	MPa	2.74% COV
	Sample K84	80.015	MPa	2.94% COV

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

Material: PP	Sample X83	13.322	grams/10 mins	5.19% COV
	Sample X84	13.458	grams/10 mins	5.13% COV

Analysis 755 - Moisture Content

Material: ABS/PC	Sample Y83	0.11064	Percent	18.2% COV
	Sample Y84	0.10999	Percent	18.2% COV

Analysis 757 - Ash Content

Material: PBT	Sample L83	30.602	Percent	1.07% COV
	Sample L84	30.548	Percent	1.09% COV

Analysis 758 - TGA

Material: PP	Sample A83	67.656	Percent	35.5% COV
	Sample A84	67.643	Percent	35.4% COV

Analysis 760 - DSC Crystallization Temperature

Material: PBT	Sample W83	175.03	Degrees Celsius	3.34% COV
	Sample W84	175.23	Degrees Celsius	3.31% COV

Analysis 761 - DSC Melt Temperature

Material: PBT	Sample W83	223.92	Degrees Celsius	0.509% COV
	Sample W84	223.92	Degrees Celsius	0.554% COV

Analysis 762 - DSC Enthalpy of Crystallization

Material: PBT	Sample W83	48.228	Joules Per Gram	8.85% COV
	Sample W84	48.405	Joules Per Gram	9.16% COV

Analysis 763 - DSC Enthalpy of Fusion

Material: PBT	Sample W83	42.791	Joules Per Gram	15.9% COV
	Sample W84	41.901	Joules Per Gram	16.1% COV

Analysis 764 - DSC Glass Transition Temperature

Material: PET	Sample V83	81.945	Degrees Celsius	2.15% COV
	Sample V84	81.960	Degrees Celsius	2.29% COV

Analysis 765 - Research Crystallization Peak Temperature

Material: PBT	Sample W83	174.81	Degrees Celsius	3.66% COV
	Sample W84	174.76	Degrees Celsius	3.48% COV



Plastics Interlaboratory Testing Program

Results Summary for Report #122, 2nd Qtr 2022

Analysis 766 - Research Melting Peak Temperature

Material: PBT	Sample W83	223.41	Degrees Celsius	0.459% COV
	Sample W84	223.46	Degrees Celsius	0.527% COV

Analysis 767 - Research Heat of Crystallization

Material: PBT	Sample W83	50.004	Joules Per Gram	9.93% COV
	Sample W84	50.296	Joules Per Gram	13.9% COV

Analysis 768 - Research Heat of Fusion

Material: PBT	Sample W83	43.706	Joules Per Gram	13.9% COV
	Sample W84	43.445	Joules Per Gram	13.9% COV

Analysis 769 - Research Glass Transition Temperature

Material: PET	Sample V83	79.965	Degrees Celsius	3.87% COV
	Sample V84	80.078	Degrees Celsius	3.19% COV

Analysis 770 - Tensile Stress at Yield, Films

Material: LDPE	Sample B83	1,926.87	psi	11.6% COV
	Sample B84	1,655.60	psi	9.54% COV

Analysis 771 - Tensile Stress at Break, Films

Material: LDPE	Sample B83	3,362.06	psi	14.6% COV
	Sample B84	3,427.52	psi	13.6% COV

Analysis 772 - Elongation at Yield, Films

Material: LDPE	Sample B83	79.080	Percent	37.1% COV
	Sample B84	44.594	Percent	41.6% COV

Analysis 773 - Elongation at Break, Films

Material: LDPE	Sample B83	756.91	Percent	17.8% COV
	Sample B84	889.32	Percent	16.1% COV

Analysis 774 - Thickness of Film Specimens

Material: LDPE	Sample B83	2.6963	mils	3.05% COV
	Sample B84	2.9285	mils	3.21% COV

Analysis 775 - Secant Modulus at 1% Strain

Material: LDPE	Sample B83	33,204.80	psi	13.2% COV
	Sample B84	33,705.54	psi	17.3% COV

Analysis 776 - Secant Modulus at 2% Strain

Material: LDPE	Sample B83	28,445.66	psi	9.24% COV
	Sample B84	28,718.33	psi	12.6% COV

Analysis 780 - Static Friction

Material: LDPE	Sample P83	0.15224	COF	25.1% COV
	Sample P84	0.15236	COF	29.0% COV

Analysis 781 - Kinetic Friction

Material: LDPE	Sample P83	0.08712	COF	29.5% COV
	Sample P84	0.09692	COF	42.9% COV

Analysis 782 - Tear Resistance of Film

Material: LDPE	Sample Q83	311.80	grams-force	14.9% COV
	Sample Q84	230.12	grams-force	11.4% COV

Analysis 785 - Percent Haze

Material: LDPE	Sample D83	25.070	Percent	3.94% COV
	Sample D84	23.936	Percent	4.32% COV



Plastics Interlaboratory Testing Program

Results Summary for Report #122, 2nd Qtr 2022

Analysis 786 - Total Transmittance

Material: LDPE	Sample D83	92.580	Percent	1.31% COV
	Sample D84	92.659	Percent	1.34% COV

Analysis 790 - Notched Izod Impact

Material: HIPS	Sample S83	1.9308	ft.lbf/in	8.08% COV
	Sample S84	1.9211	ft.lbf/in	7.34% COV

Analysis 791 - Notched Izod Impact

Material: ABS/PC	Sample Z83	46.045	kJ/m ²	11.0% COV
	Sample Z84	45.594	kJ/m ²	10.2% COV

Analysis 792 - Notched Charpy Impact

Material: ABS/PC	Sample M83	50.722	kJ/m ²	9.53% COV
	Sample M84	50.528	kJ/m ²	9.08% COV



Plastics Interlaboratory Testing Program

Report #122

Analysis 704

2nd Qtr 2022

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		3,541.6	59.1	0.61	3,534.8	58.3	0.59
36LT7Z		3,411.0	-71.5	-0.74	3,394.0	-82.5	-0.84
3KDD23		3,611.2	128.7	1.32	3,567.2	90.7	0.92
3RWTFX		3,504.1	21.6	0.22	3,504.1	27.6	0.28
426DMZ		3,413.4	-69.1	-0.71	3,370.6	-105.9	-1.08
4FN9UJ	M	No data reported for this sample			2,557.9	-918.7	-9.37
4GY4HW	X	3,509.8	27.3	0.28	3,330.2	-146.3	-1.49
4JMH88		3,588.3	105.7	1.09	3,582.5	105.9	1.08
4XG9LF		3,531.8	49.3	0.51	3,526.2	49.7	0.51
4ZQCD7		3,480.9	-1.6	-0.02	3,480.9	4.4	0.04
6B3VHV		3,488.0	5.5	0.06	3,464.0	-12.5	-0.13
6CERNZ		3,253.8	-228.7	-2.35	3,264.2	-212.3	-2.17
6ENP89		3,528.0	45.5	0.47	3,534.0	57.5	0.59
6HL7HG		3,504.0	21.5	0.22	3,502.0	25.5	0.26
6VCZWW		3,383.0	-99.5	-1.02	3,348.0	-128.5	-1.31
7CAURU		3,529.1	46.6	0.48	3,560.8	84.3	0.86
7V77QV		3,322.9	-159.6	-1.64	3,288.5	-188.0	-1.92
84D6VQ		3,512.6	30.1	0.31	3,520.2	43.7	0.45
8WTTXP		3,256.0	-226.5	-2.33	3,240.0	-236.5	-2.41
94W7LY		3,478.6	-3.9	-0.04	3,455.2	-21.3	-0.22
99RV6R		3,480.9	-1.6	-0.02	3,451.9	-24.6	-0.25
9U4XUG		3,496.0	13.5	0.14	3,486.0	9.5	0.10
AC2G8V		3,515.6	33.1	0.34	3,480.4	3.9	0.04
B7XXMB		3,518.0	35.5	0.36	3,508.0	31.5	0.32
BE7REJ		3,367.7	-114.8	-1.18	3,368.0	-108.5	-1.11
BMGUZJ		3,522.6	40.1	0.41	3,519.0	42.5	0.43
BPG7BP		3,403.0	-79.5	-0.82	3,451.2	-25.3	-0.26
BPQRD2		3,536.2	53.7	0.55	3,566.2	89.7	0.91
BT6NLN		3,528.4	45.9	0.47	3,568.2	91.7	0.94
DLGMCN	X	3,286.2	-196.3	-2.02	3,429.4	-47.1	-0.48
DZQMVR		3,525.2	42.7	0.44	3,486.8	10.3	0.10
EUNN7N		3,400.0	-82.5	-0.85	3,418.4	-58.1	-0.59
H2DG8D		3,511.3	28.8	0.30	3,536.9	60.4	0.62
H2F23T		3,404.0	-78.5	-0.81	3,406.6	-69.9	-0.71
H4KR8M		3,342.4	-140.1	-1.44	3,382.2	-94.3	-0.96



Plastics Interlaboratory Testing Program

Report #122

Analysis 704

2nd Qtr 2022

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
JWG92A		3,432.2	-50.3	-0.52	3,406.1	-70.4	-0.72
KEUDZ7		3,425.4	-57.1	-0.59	3,476.2	-0.3	0.00
KMLQZ7		3,412.5	-70.0	-0.72	3,396.7	-79.8	-0.81
N38A9P		3,469.8	-12.8	-0.13	3,491.9	15.4	0.16
NA6ZRE		3,523.4	40.9	0.42	3,543.6	67.1	0.68
PDMNMC	X	3,115.4	-367.1	-3.77	3,109.6	-366.9	-3.74
PFPMX6	*	3,316.0	-166.5	-1.71	3,372.0	-104.5	-1.07
PLFUHX		3,357.9	-124.6	-1.28	3,311.0	-165.6	-1.69
PMVYGW		3,540.0	57.5	0.59	3,510.0	33.5	0.34
QXRGDG		3,443.6	-38.9	-0.40	3,461.4	-15.1	-0.15
RF2XQU		3,630.1	147.5	1.52	3,619.0	142.5	1.45
TABNGV	*	3,729.4	246.9	2.54	3,689.2	212.7	2.17
TGU7HA		3,410.0	-72.5	-0.75	3,402.0	-74.5	-0.76
TYQGH7		3,503.1	20.6	0.21	3,516.8	40.3	0.41
UA2FG7		3,569.8	87.2	0.90	3,572.6	96.1	0.98
VMC4FV	X	327.4	-3,155.1	-32.43	326.6	-3,149.9	-32.14
VV3VFA		3,531.2	48.7	0.50	3,509.2	32.7	0.33
VVLMG8	X	3,964.2	481.7	4.95	3,970.3	493.8	5.04
W34BV9		3,489.2	6.7	0.07	3,496.6	20.1	0.20
XWP2YW		3,541.0	58.5	0.60	3,518.6	42.1	0.43
XZ8GBA	*	3,540.6	58.1	0.60	3,457.6	-18.9	-0.19
YDQBDM		3,696.2	213.7	2.20	3,713.0	236.5	2.41
YND6R6		3,588.0	105.5	1.08	3,588.0	111.5	1.14
Z3RTHE	X	3,690.4	207.9	2.14	3,546.8	70.3	0.72
ZB3AW7		3,320.0	-162.5	-1.67	3,286.0	-190.5	-1.94
ZCPZPX		3,585.8	103.2	1.06	3,529.4	52.9	0.54
ZJQ8EY		3,572.0	89.5	0.92	3,600.0	123.5	1.26
ZMEE32		3,504.1	21.6	0.22	3,451.9	-24.6	-0.25

Summary Statistics

	Sample F83	Sample F84
Grand Means	3,482.52 psi	3,476.54 psi
Std Dev Btwn Labs	97.30 psi	98.02 psi

Statistics based on 56 of 63 reporting participants

Sample F83: HIPS & Sample F84: HIPS



Comments on Assigned Data Flags for Test #704

- 4GY4HW (X) - Inconsistent in testing between samples.
- 4FN9UJ (M) - Participant did not submit data for sample F83.
- VMC4FV (X) - Extreme data.
- PDMNMC (X) - Data for both samples are low. Possible Systematic Error.
- VVLMG8 (X) - Data for both samples are high. Possible Systematic Error.
- DLGMCN (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F83.
- Z3RTHE (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F83.



Plastics Interlaboratory Testing Program

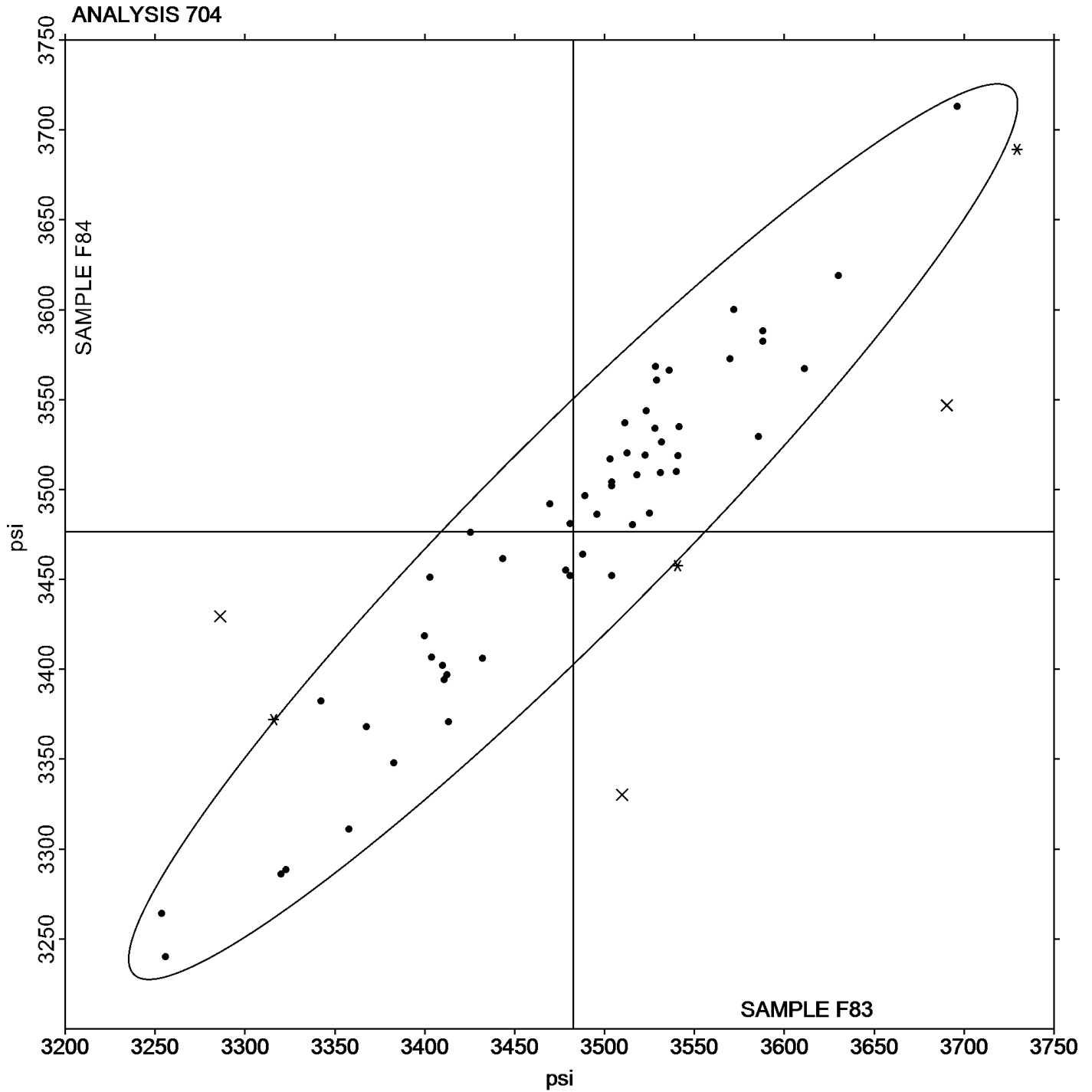
Analysis 704

Tensile Stress at Yield - psi

Report #122

2nd Qtr 2022

Grand Mean Sample F83: 3,482.52 psi Grand Mean Sample F84: 3,476.54 psi





Plastics Interlaboratory Testing Program

Report #122

Analysis 705

2nd Qtr 2022

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		2,827.8	85.9	0.90	2,693.0	-12.2	-0.15
36LT7Z		2,617.0	-124.9	-1.31	2,582.4	-122.8	-1.54
3KDD23		2,941.8	199.9	2.09	2,803.4	98.2	1.23
3RWTFX		2,842.8	100.8	1.06	2,793.5	88.2	1.11
3UMTVG	X	2,554.0	-187.9	-1.97	2,742.2	37.0	0.46
426DMZ		2,697.0	-44.9	-0.47	2,689.8	-15.4	-0.19
4FN9UJ	M	No data reported for this sample			2,604.9	-100.3	-1.26
4GY4HW		2,802.4	60.5	0.63	2,631.6	-73.6	-0.92
4JMH88		2,845.7	103.7	1.09	2,819.6	114.3	1.43
4XG9LF		2,788.0	46.1	0.48	2,655.8	-49.4	-0.62
4ZQCD7		2,784.7	42.8	0.45	2,755.7	50.5	0.63
6B3VHV		2,728.0	-13.9	-0.15	2,697.8	-7.4	-0.09
6CERNZ	*	2,471.2	-270.7	-2.83	2,458.5	-246.7	-3.09
6ENP89		2,722.1	-19.8	-0.21	2,730.1	24.9	0.31
6VCZWW		2,610.6	-131.3	-1.37	2,550.4	-154.8	-1.94
7CAURU		2,725.7	-16.2	-0.17	2,742.5	37.2	0.47
7V77QV		2,623.7	-118.3	-1.24	2,601.0	-104.3	-1.31
84D6VQ		2,725.8	-16.1	-0.17	2,750.2	45.0	0.56
8WTTXP		2,536.0	-205.9	-2.16	2,546.0	-159.2	-1.99
94W7LY		2,761.3	19.4	0.20	2,719.5	14.3	0.18
99RV6R		2,726.7	-15.2	-0.16	2,755.7	50.5	0.63
AC2G8V		2,806.4	64.5	0.67	2,673.4	-31.8	-0.40
B7XXMB		2,812.6	70.7	0.74	2,785.8	80.6	1.01
BE7REJ		2,573.7	-168.2	-1.76	2,584.0	-121.2	-1.52
BMGUZJ		2,763.0	21.1	0.22	2,785.0	79.8	1.00
BPG7BP	*	2,708.2	-33.7	-0.35	2,812.6	107.4	1.34
BPQRD2		2,810.0	68.1	0.71	2,749.8	44.6	0.56
BT6NLN		2,835.8	93.9	0.98	2,815.0	109.8	1.37
DLGMCN		2,645.2	-96.7	-1.01	2,673.0	-32.2	-0.40
DZQMVR		2,732.2	-9.7	-0.10	2,686.4	-18.8	-0.24
EUNN7N		2,749.2	7.3	0.08	2,711.8	6.6	0.08
H2DG8D		2,741.1	-0.8	-0.01	2,762.9	57.6	0.72
H4KR8M	X	3,344.6	602.7	6.31	3,385.2	680.0	8.52
JWG92A		2,691.9	-50.0	-0.52	2,664.1	-41.2	-0.52
KEUDZ7		2,606.8	-135.1	-1.41	2,630.6	-74.6	-0.94



Plastics Interlaboratory Testing Program

Report #122

Analysis 705

2nd Qtr 2022

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
KMLQZ7		2,639.5	-102.4	-1.07	2,641.4	-63.9	-0.80
N38A9P		2,811.7	69.8	0.73	2,694.5	-10.8	-0.13
NA6ZRE		2,736.6	-5.3	-0.06	2,677.8	-27.4	-0.34
PDMNMC		2,729.6	-12.3	-0.13	2,732.5	27.3	0.34
PFPMX6		2,620.0	-121.9	-1.28	2,626.0	-79.2	-0.99
PLFUHX		2,808.8	66.9	0.70	2,736.0	30.8	0.39
PMVYGW		2,774.4	32.5	0.34	2,697.8	-7.4	-0.09
QXRGDG		2,900.4	158.5	1.66	2,741.1	35.9	0.45
TABNGV		2,887.6	145.7	1.52	2,853.4	148.2	1.86
TYQGH7		2,714.4	-27.5	-0.29	2,688.9	-16.4	-0.20
UA2FG7		2,712.9	-29.0	-0.30	2,715.5	10.2	0.13
VMC4FV	X	257.3	-2,484.6	-26.00	260.8	-2,444.5	-30.62
VV3VFA		2,730.8	-11.1	-0.12	2,703.0	-2.2	-0.03
VVLMG8	X	3,208.0	466.1	4.88	3,167.4	462.1	5.79
XWP2YW		2,734.2	-7.7	-0.08	2,713.0	7.8	0.10
XZ8GBA		2,701.6	-40.3	-0.42	2,644.2	-61.0	-0.76
YDQBDM	X	2,923.4	181.5	1.90	3,026.4	321.2	4.02
YND6R6		2,902.0	160.1	1.68	2,782.0	76.8	0.96
Z3RTHE	X	3,027.0	285.1	2.98	2,739.2	34.0	0.43
ZB3AW7		2,818.0	76.1	0.80	2,750.0	44.8	0.56
ZCPZPX		2,846.7	104.8	1.10	2,778.5	73.3	0.92
ZJQ8EY		2,796.0	54.1	0.57	2,818.0	112.8	1.41
ZMEE32		2,718.0	-23.9	-0.25	2,662.9	-42.3	-0.53

Summary Statistics		
	Sample F83	Sample F84
Grand Means	2,741.92 psi	2,705.24 psi
Std Dev Btwn Labs	95.55 psi	79.82 psi
Statistics based on 51 of 58 reporting participants		

Sample F83: HIPS & Sample F84: HIPS



Plastics Interlaboratory Testing Program

Analysis 705

Tensile Stress at Break - psi

Report #122

2nd Qtr 2022

Comments on Assigned Data Flags for Test #705

- H4KR8M (X) - Data for both samples are high.
- 4FN9UJ (M) - Participant did not submit data for sample F83.
- 3UMTVG (X) - Inconsistent in testing between samples.
- VMC4FV (X) - Extreme data.
- VVLMG8 (X) - Data for both samples are high.
- Z3RTHE (X) - Data for sample F83 are high. Inconsistent in testing between samples.
- YDQBDM (X) - Data for sample F84 are high.



Plastics Interlaboratory Testing Program

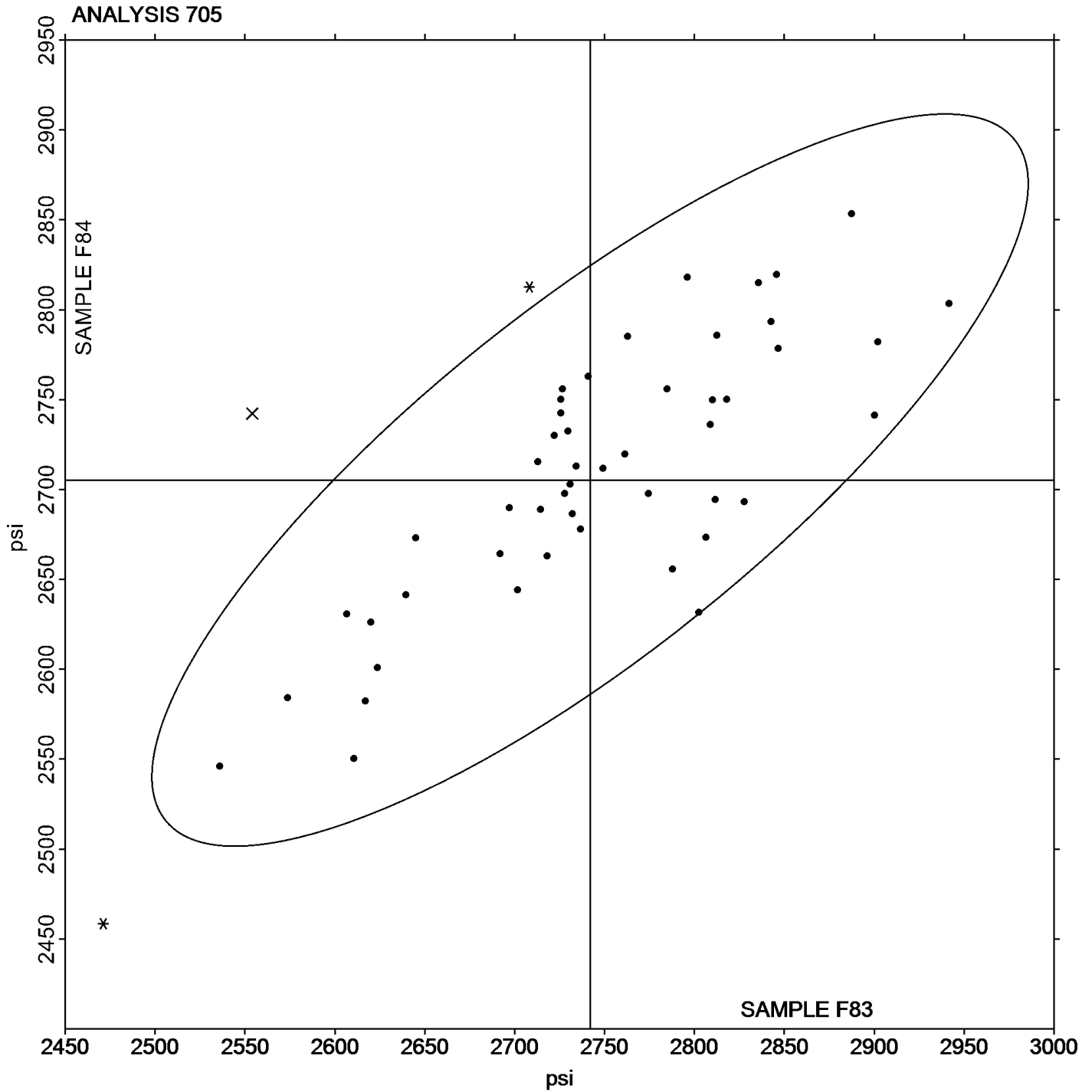
Report #122

Analysis 705

2nd Qtr 2022

Tensile Stress at Break - psi

Grand Mean Sample F83: 2,741.92 psi Grand Mean Sample F84: 2,705.24 psi





Plastics Interlaboratory Testing Program

Report #122

Analysis 706

2nd Qtr 2022

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		1.518	-0.019	-0.23	1.520	-0.014	-0.16
36LT7Z		1.588	0.051	0.62	1.562	0.028	0.32
3RWTFX		1.580	0.043	0.53	1.580	0.046	0.53
426DMZ		1.454	-0.083	-1.01	1.430	-0.104	-1.20
4GY4HW		1.636	0.099	1.21	1.608	0.074	0.85
4JMH88		1.600	0.063	0.77	1.600	0.066	0.76
4XG9LF		1.462	-0.075	-0.92	1.430	-0.104	-1.20
4ZQCD7		1.488	-0.049	-0.60	1.492	-0.042	-0.48
6B3VHV		1.438	-0.099	-1.21	1.384	-0.150	-1.73
6CERNZ		1.524	-0.013	-0.16	1.528	-0.006	-0.07
6ENP89		1.664	0.127	1.55	1.670	0.136	1.57
6HL7HG		1.600	0.063	0.77	1.534	0.000	0.00
6VCZWW		1.452	-0.085	-1.04	1.410	-0.124	-1.43
7CAURU		1.702	0.165	2.01	1.725	0.191	2.20
7V77QV	X	1.964	0.427	5.21	1.964	0.430	4.95
84D6VQ		1.494	-0.043	-0.53	1.502	-0.032	-0.37
8WTTXP		1.362	-0.175	-2.14	1.380	-0.154	-1.77
94W7LY		1.528	-0.009	-0.11	1.532	-0.002	-0.02
99RV6R		1.532	-0.005	-0.06	1.516	-0.018	-0.21
AC2G8V		1.532	-0.005	-0.06	1.516	-0.018	-0.21
B7XXMB		1.528	-0.009	-0.11	1.544	0.010	0.12
BE7REJ		1.496	-0.041	-0.50	1.500	-0.034	-0.39
BMGUZJ		1.524	-0.013	-0.16	1.514	-0.020	-0.23
BPG7BP		1.540	0.003	0.04	1.600	0.066	0.76
BPQRD2		1.522	-0.015	-0.18	1.490	-0.044	-0.51
BT6NLN		1.544	0.007	0.09	1.530	-0.004	-0.04
DLGMCN	X	8.602	7.065	86.33	8.632	7.098	81.84
DZQMVR		1.528	-0.009	-0.11	1.510	-0.024	-0.28
EUNN7N		1.484	-0.053	-0.65	1.532	-0.002	-0.02
H2DG8D		1.597	0.060	0.73	1.582	0.048	0.55
H2F23T		1.558	0.021	0.26	1.548	0.014	0.16
H4KR8M	*	1.800	0.263	3.21	1.800	0.266	3.07
JWG92A		1.584	0.047	0.57	1.585	0.051	0.59
KEUDZ7	X	4.348	2.811	34.35	4.320	2.786	32.12
KMLQZ7		1.489	-0.048	-0.59	1.539	0.006	0.06



Plastics Interlaboratory Testing Program

Report #122

Analysis 706

2nd Qtr 2022

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
N38A9P		1.540	0.003	0.03	1.570	0.036	0.41
NA6ZRE		1.518	-0.019	-0.23	1.538	0.004	0.05
PDMNMC		1.358	-0.179	-2.19	1.340	-0.194	-2.24
PFPMX6	X	7.102	5.565	68.00	8.840	7.306	84.24
PMVYGW		1.494	-0.043	-0.53	1.512	-0.022	-0.25
QXRGDG		1.473	-0.064	-0.78	1.536	0.002	0.03
RF2XQU		1.538	0.001	0.01	1.542	0.008	0.09
TYQGH7	X	1.534	-0.003	-0.04	1.410	-0.124	-1.43
UA2FG7		1.730	0.193	2.35	1.726	0.192	2.22
VMC4FV	X	51.994	50.457	616.56	41.998	40.464	466.56
VV3VFA		1.500	-0.037	-0.45	1.535	0.001	0.01
VVLMG8	X	1.854	0.317	3.87	1.876	0.342	3.94
W34BV9		1.580	0.043	0.53	1.580	0.046	0.53
XWP2YW		1.572	0.035	0.43	1.570	0.036	0.42
XZ8GBA		1.530	-0.007	-0.09	1.504	-0.030	-0.34
YDQBDM		1.532	-0.005	-0.06	1.550	0.016	0.19
YND6R6		1.608	0.071	0.87	1.540	0.006	0.07
Z3RTHE	X	4.000	2.463	30.10	3.800	2.266	26.13
ZB3AW7		1.418	-0.119	-1.45	1.358	-0.176	-2.03
ZCPZPX		1.600	0.063	0.77	1.600	0.066	0.76
ZJQ8EY		1.500	-0.037	-0.45	1.500	-0.034	-0.39
ZMEE32		1.476	-0.061	-0.75	1.466	-0.068	-0.78

Summary Statistics		Sample F83	Sample F84
Grand Means		1.5370 Percent	1.5339 Percent
Std Dev Btwn Labs		0.0818 Percent	0.0867 Percent
Statistics based on 49 of 57 reporting participants			

Sample F83: HIPS & Sample F84: HIPS



Plastics Interlaboratory Testing Program

Analysis 706

Percent Elongation at Yield - Percent

Report #122

2nd Qtr 2022

Comments on Assigned Data Flags for Test #706

- KEUDZ7 (X) - Data for both samples are high. Possible Systematic Error.
- VMC4FV (X) - Extreme data.
- TYQGH7 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- PFPMX6 (X) - Extreme data.
- VVLMG8 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 7V77QV (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F83.
- DLGMCN (X) - Extreme data.
- Z3RTHE (X) - Extreme data.



Plastics Interlaboratory Testing Program

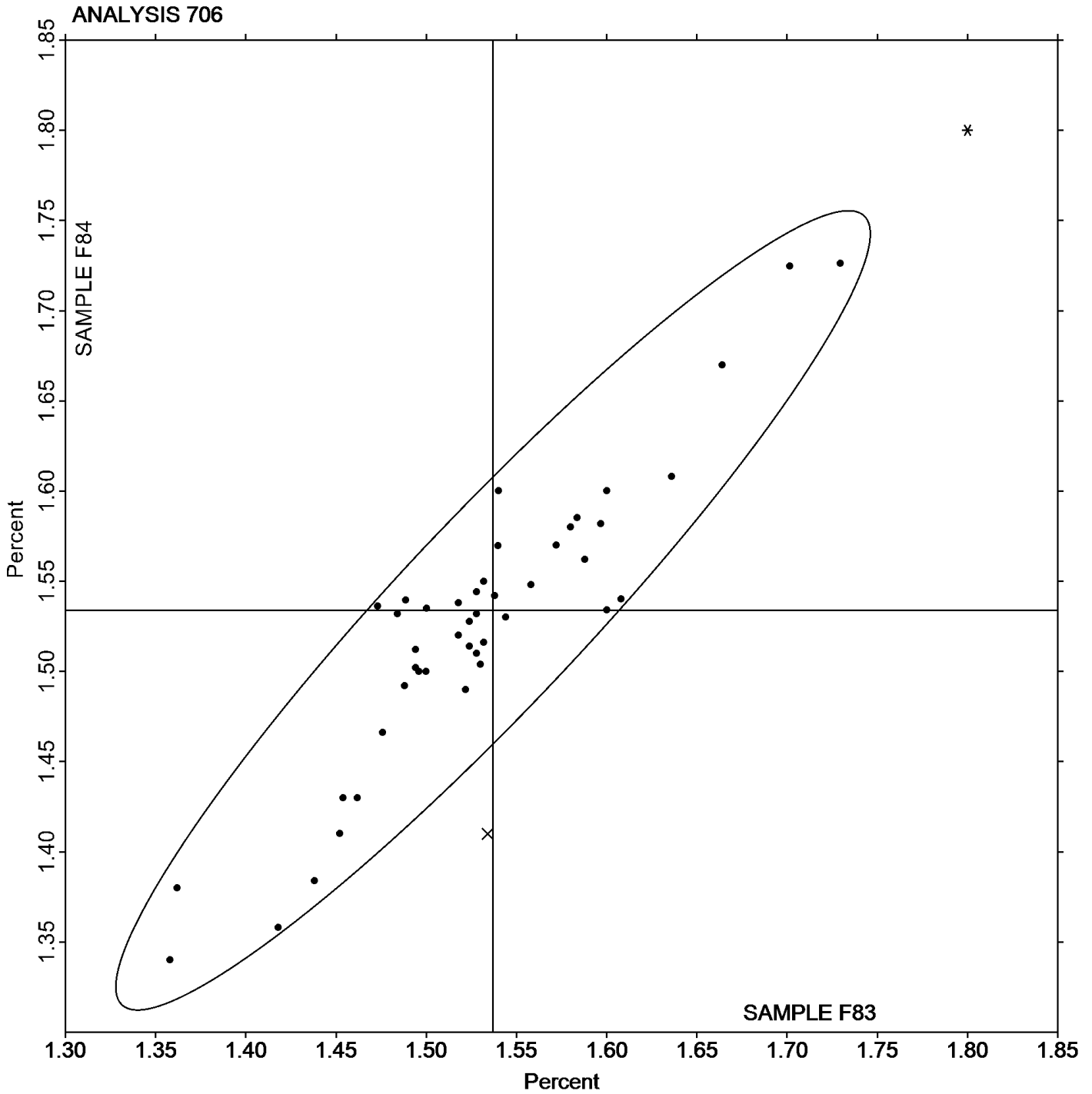
Analysis 706

Percent Elongation at Yield - Percent

Report #122

2nd Qtr 2022

Grand Mean Sample F83: 1.5370 Percent Grand Mean Sample F84: 1.5339 Percent





Plastics Interlaboratory Testing Program

Report #122

Analysis 708

2nd Qtr 2022

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		259.82	0.15	0.01	257.26	-2.07	-0.11
36LT7Z		245.10	-14.57	-0.84	245.02	-14.31	-0.78
3RWTFX		257.01	-2.66	-0.15	257.59	-1.74	-0.10
426DMZ		273.68	14.02	0.81	274.78	15.45	0.85
4FN9UJ	M	No data reported for this sample			269.46	10.13	0.56
4GY4HW		249.26	-10.41	-0.60	246.50	-12.83	-0.70
4JMH88		251.79	-7.88	-0.46	251.21	-8.12	-0.45
4XG9LF		279.50	19.83	1.15	280.22	20.89	1.15
4ZQCD7		264.49	4.82	0.28	266.87	7.55	0.41
6B3VHV		255.40	-4.27	-0.25	256.00	-3.33	-0.18
6CERNZ	X	0.24	-259.43	-15.00	0.23	-259.09	-14.20
6ENP89		254.24	-5.43	-0.31	255.74	-3.59	-0.20
6HL7HG		246.76	-12.91	-0.75	249.64	-9.69	-0.53
6VCZWW		273.08	13.41	0.78	283.40	24.07	1.32
7CAURU	*	212.32	-47.35	-2.74	213.09	-46.24	-2.53
7V77QV	X	196.39	-63.28	-3.66	201.49	-57.83	-3.17
84D6VQ		279.74	20.07	1.16	270.14	10.81	0.59
8WTTXP		259.40	-0.27	-0.02	256.40	-2.93	-0.16
94W7LY		262.92	3.25	0.19	262.95	3.62	0.20
99RV6R		263.54	3.87	0.22	268.29	8.97	0.49
AC2G8V		260.82	1.15	0.07	261.24	1.91	0.10
B7XXMB		266.20	6.53	0.38	269.20	9.87	0.54
BE7REJ		257.69	-1.97	-0.11	258.11	-1.22	-0.07
BMGUZJ		274.10	14.43	0.83	273.78	14.45	0.79
BPG7BP	*	266.58	6.92	0.40	254.05	-5.28	-0.29
BPQRD2		292.72	33.05	1.91	297.94	38.61	2.12
DLGMCN	X	43.60	-216.07	-12.49	45.20	-214.13	-11.74
DZQMVR		271.96	12.29	0.71	268.32	8.99	0.49
EUNN7N		235.04	-24.63	-1.42	225.77	-33.56	-1.84
H2DG8D		258.94	-0.73	-0.04	258.87	-0.46	-0.03
H2F23T		257.80	-1.87	-0.11	264.26	4.93	0.27
H4KR8M	X	119.51	-140.16	-8.10	99.38	-159.95	-8.77
JWG92A		244.71	-14.96	-0.86	244.16	-15.17	-0.83
KEUDZ7		296.62	36.95	2.14	291.50	32.17	1.76
KMLQZ7	*	220.88	-38.79	-2.24	211.64	-47.68	-2.61



Plastics Interlaboratory Testing Program

Report #122

Analysis 708

2nd Qtr 2022

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F83			Sample F84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
N38A9P		265.06	5.39	0.31	262.22	2.89	0.16
NA6ZRE		258.80	-0.87	-0.05	265.46	6.13	0.34
PDMNMC	X	313.05	53.38	3.09	324.00	64.67	3.55
PFPMX6	X	39.48	-220.19	-12.73	32.04	-227.29	-12.46
PMVYGW		266.80	7.13	0.41	261.20	1.87	0.10
QXRGDG		262.06	2.39	0.14	261.22	1.89	0.10
TYQGH7		281.32	21.65	1.25	284.82	25.49	1.40
UA2FG7	*	211.64	-48.03	-2.78	211.57	-47.76	-2.62
VMC4FV	X	9.82	-249.85	-14.45	9.83	-249.49	-13.68
VV3VFA		265.16	5.49	0.32	262.72	3.39	0.19
VVLMG8		248.02	-11.65	-0.67	248.36	-10.96	-0.60
W34BV9		249.02	-10.65	-0.62	248.22	-11.11	-0.61
XWP2YW		268.32	8.65	0.50	269.10	9.77	0.54
XZ8GBA		267.50	7.83	0.45	267.10	7.77	0.43
YDQBDM		283.30	23.63	1.37	284.58	25.25	1.38
YND6R6		247.20	-12.47	-0.72	257.20	-2.13	-0.12
ZB3AW7		247.40	-12.27	-0.71	249.80	-9.53	-0.52
ZCPZPX		255.26	-4.41	-0.25	254.10	-5.23	-0.29
ZJQ8EY		276.40	16.73	0.97	275.40	16.07	0.88
ZMEE32		259.04	-0.63	-0.04	251.35	-7.97	-0.44

Summary Statistics

	Sample F83	Sample F84
Grand Means	259.668 ksi	259.327 ksi
Stnd Dev Btwn Labs	17.296 ksi	18.241 ksi

Statistics based on 47 of 55 reporting participants

Sample F83: HIPS & Sample F84: HIPS



Comments on Assigned Data Flags for Test #708

- H4KR8M (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample F83.
- 4FN9UJ (M) - Participant did not submit data for sample F83.
- VMC4FV (X) - Data for both samples are low.
- PFPMX6 (X) - Data for both samples are low.
- PDMNMC (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F83.
- 7V77QV (X) - Data for both samples are low. Possible Systematic Error.
- DLGMCN (X) - Data for both samples are low.
- 6CERNZ (X) - Extreme data.



Plastics Interlaboratory Testing Program

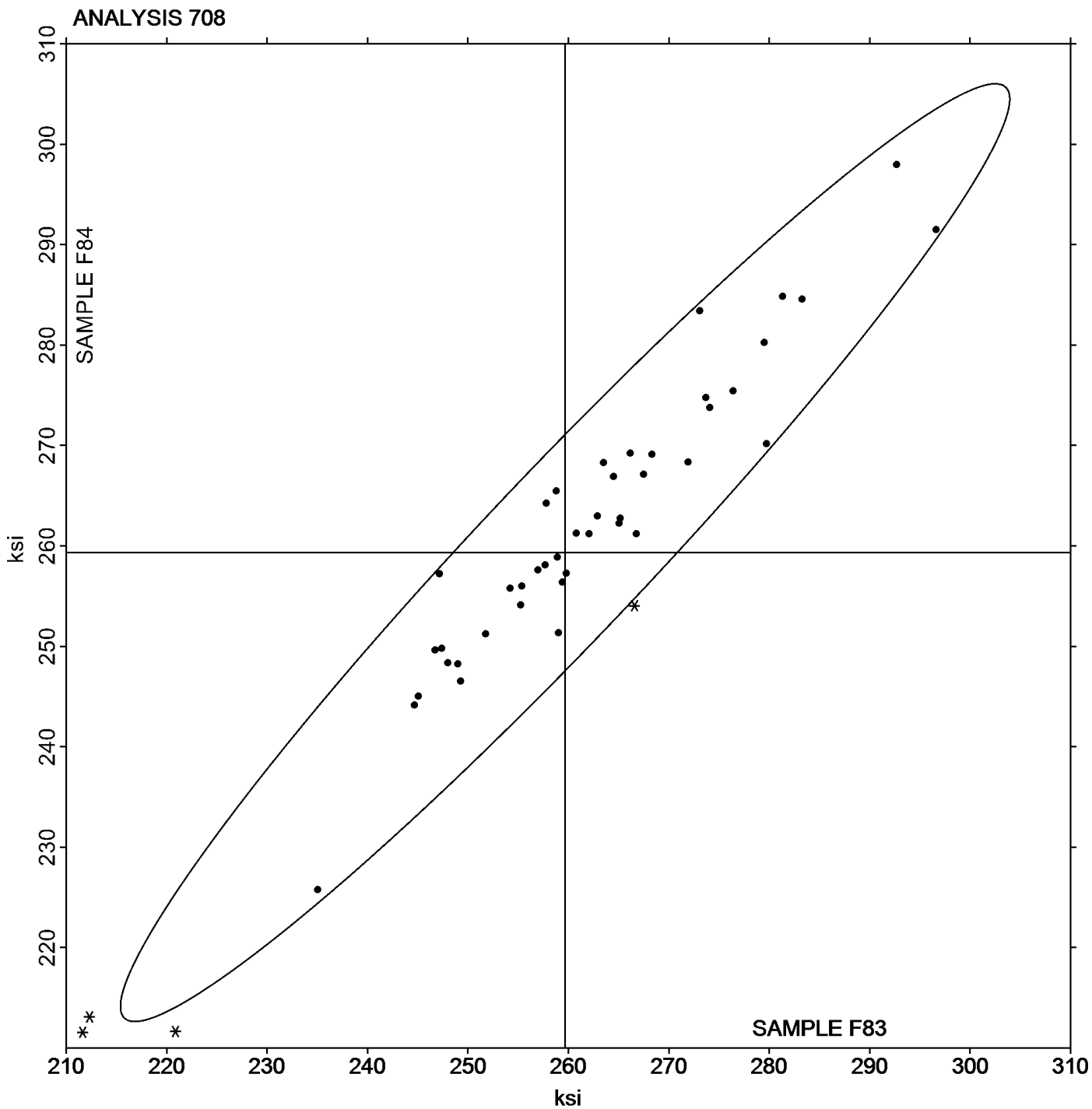
Report #122

Analysis 708

2nd Qtr 2022

Modulus of Elasticity - ksi

Grand Mean Sample F83: 259.67 ksi Grand Mean Sample F84: 259.33 ksi





Plastics Interlaboratory Testing Program

Report #122

Analysis 710

2nd Qtr 2022

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

WebCode	Data Flag	Sample E83			Sample E84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RWTFX		80.25	-0.94	-0.74	80.15	-0.95	-0.72	AT
426DMZ		79.33	-1.86	-1.47	79.35	-1.75	-1.33	CE
4GY4HW		80.83	-0.36	-0.29	80.60	-0.50	-0.38	ZW
4JMH88		81.25	0.06	0.05	81.18	0.07	0.05	AT
4ZQCD7		81.95	0.76	0.60	82.05	0.95	0.72	ZW
6VCZWW		79.30	-1.89	-1.49	79.43	-1.68	-1.27	TO
99RV6R		78.48	-2.71	-2.14	78.42	-2.68	-2.03	RO
AC2G8V		80.48	-0.71	-0.57	80.38	-0.73	-0.55	IN
BPQRD2		81.80	0.61	0.48	81.28	0.17	0.13	IN
BT6NLN		79.88	-1.31	-1.04	79.83	-1.28	-0.97	TO
DLGMCN		82.98	1.79	1.41	83.10	2.00	1.51	XX
G6HPYH		81.85	0.66	0.52	81.53	0.42	0.32	XA
H2DG8D	M	No data reported for this sample			80.85	-0.25	-0.19	IN
H2F23T		80.18	-1.01	-0.80	79.95	-1.15	-0.88	TO
PDMNMC		81.80	0.61	0.48	81.38	0.27	0.21	CE
PEEHM2		81.23	0.04	0.03	80.70	-0.40	-0.31	IN
QWRLJD		81.08	-0.11	-0.09	81.15	0.05	0.04	TO
QXRGDG		80.13	-1.06	-0.84	79.72	-1.39	-1.05	TO
RF2XQU		81.50	0.31	0.25	81.40	0.30	0.23	IN
TABNGV		81.33	0.14	0.11	81.45	0.35	0.26	TO
VVLMG8		82.13	0.94	0.74	81.90	0.80	0.60	CE
W2N2X2		80.50	-0.69	-0.55	80.43	-0.68	-0.51	XX
W34BV9		83.93	2.74	2.16	83.68	2.57	1.95	CE
WM79AV		81.65	0.46	0.36	81.80	0.70	0.53	TO
XWP2YW		81.20	0.01	0.01	81.40	0.30	0.23	CE
XZ8GBA	X	88.33	7.14	5.64	88.13	7.02	5.33	TO
YDQBDM		83.45	2.26	1.79	83.68	2.57	1.95	TO
Z3RTHE		80.93	-0.26	-0.21	80.60	-0.50	-0.38	CE
ZJQ8EY	*	82.77	1.58	1.25	83.30	2.20	1.67	CF



Plastics Interlaboratory Testing Program

Report #122

Analysis 710

2nd Qtr 2022

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

Summary Statistics		
	<u>Sample E83</u>	<u>Sample E84</u>
Grand Means	81.190 Degrees C	81.103 Degrees C
Stnd Dev Btwn Labs	1.265 Degrees C	1.318 Degrees C
Statistics based on 27 of 29 reporting participants		

Sample E83: ABS & Sample E84: ABS

Comments on Assigned Data Flags for Test #710

XZ8GBA (X) - Data for both samples are high. Possible Systematic Error.

H2DG8D (M) - Participant did not submit data for sample E83.

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

Report #122

Analysis 711

2nd Qtr 2022

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

WebCode	Data Flag	Sample G83			Sample G84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		83.9	-1.9	-0.34	86.3	0.0	-0.01	CE
4JMH88		90.3	4.5	0.78	90.1	3.7	0.61	AT
4ZQCD7		91.8	5.9	1.03	96.3	9.9	1.66	ZW
8PUGPY		87.3	1.4	0.24	85.8	-0.6	-0.10	CS
9U4XUG		85.0	-0.9	-0.15	84.1	-2.3	-0.38	XX
BT6NLN		82.8	-3.1	-0.54	86.0	-0.4	-0.07	TO
DAFEHK		85.2	-0.6	-0.11	84.9	-1.4	-0.24	CE
H2DG8D		85.2	-0.6	-0.11	85.8	-0.6	-0.10	IN
H2F23T		81.1	-4.8	-0.84	84.0	-2.4	-0.40	TO
PDMNMC		93.5	7.6	1.32	92.6	6.3	1.04	CE
QWRLJD		90.8	4.9	0.86	91.7	5.4	0.89	TO
RF2XQU		88.7	2.8	0.49	87.4	1.0	0.17	IN
TABNGV		70.3	-15.6	-2.72	70.0	-16.4	-2.73	TO
TGU7HA		86.3	0.4	0.07	84.4	-2.0	-0.33	XX

Summary Statistics		
	Sample G83	Sample G84
Grand Means	85.85 Degrees C	86.37 Degrees C
Stnd Dev Btwn Labs	5.74 Degrees C	6.00 Degrees C
Statistics based on 14 of 14 reporting participants		

Sample G83: PP & Sample G84: PP

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

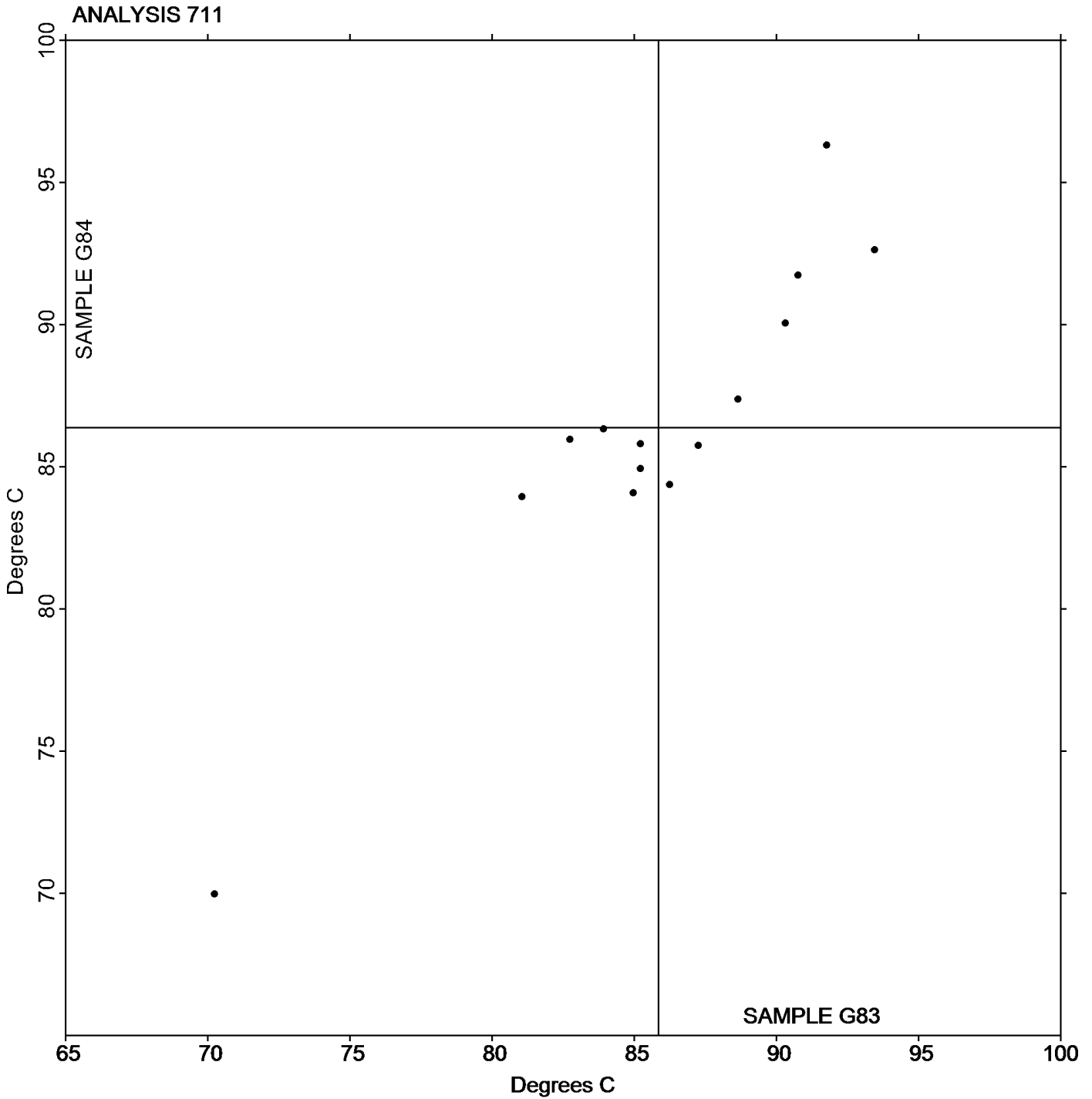
Report #122

Analysis 711

2nd Qtr 2022

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

Grand Mean Sample G83: 85.848 Degrees C Grand Mean Sample G84: 86.371 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 #122

Analysis 712

2nd Qtr 2022

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

WebCode	Data Flag	Sample N83			Sample N84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RUUR		105.32	1.04	0.67	104.98	0.60	0.39	CE
426DMZ		102.60	-1.68	-1.08	102.95	-1.42	-0.93	CE
4JMH88		105.35	1.07	0.68	104.83	0.45	0.30	AT
4ZQCD7		104.83	0.54	0.35	104.98	0.60	0.39	ZW
94W7LY		103.53	-0.76	-0.49	103.98	-0.40	-0.26	TO
9U4XUG	*	101.15	-3.13	-2.01	103.03	-1.35	-0.88	XX
AL8J9L		104.25	-0.03	-0.02	104.70	0.33	0.21	TY
AVUH2D		103.78	-0.51	-0.33	103.95	-0.42	-0.28	CE
BPQRD2		104.50	0.22	0.14	103.88	-0.50	-0.33	IN
CGLGEL		106.38	2.09	1.34	106.18	1.80	1.18	IN
DLGMCN		106.13	1.84	1.18	106.55	2.18	1.42	XX
DMD24M		104.45	0.17	0.11	104.08	-0.30	-0.19	CE
FGXAML		104.53	0.24	0.15	104.23	-0.15	-0.10	CE
FY9FMF		104.00	-0.28	-0.18	103.75	-0.62	-0.41	TO
G9JTQ6		104.95	0.67	0.43	105.48	1.10	0.72	TY
H2DG8D		103.20	-1.08	-0.69	103.43	-0.95	-0.62	TO
HGKJKR		102.13	-2.16	-1.38	103.35	-1.02	-0.67	CE
JLWV7K		104.83	0.54	0.35	104.45	0.08	0.05	IN
JWG92A		104.60	0.32	0.20	103.73	-0.65	-0.42	CE
MDA9NQ	*	99.95	-4.33	-2.78	100.13	-4.25	-2.78	XX
QWRLJD		105.25	0.97	0.62	104.25	-0.12	-0.08	XX
R9JGBD		103.55	-0.73	-0.47	102.70	-1.67	-1.09	CE
RAFXG9	*	108.08	3.79	2.43	109.15	4.78	3.12	CE
RF2XQU		103.83	-0.46	-0.29	103.98	-0.40	-0.26	IN
TGU7HA		104.25	-0.03	-0.02	104.00	-0.37	-0.24	XX
V37QJ3		106.43	2.14	1.37	106.68	2.30	1.50	CE
VBZNG4		105.43	1.14	0.73	105.78	1.40	0.92	CE
VG6MQ9		104.48	0.19	0.12	105.20	0.83	0.54	TO
VUE7MH		102.75	-1.53	-0.98	103.00	-1.37	-0.90	TO
W4VEGN		103.73	-0.56	-0.36	103.65	-0.72	-0.47	CE
XWP2YW		105.28	0.99	0.63	105.10	0.73	0.47	CE
ZJQ8EY		103.65	-0.63	-0.41	103.90	-0.47	-0.31	CF



Plastics Interlaboratory Testing Program

Report #122

Analysis 712

2nd Qtr 2022

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

Summary Statistics		
	<u>Sample N83</u>	<u>Sample N84</u>
Grand Means	104.284 Degrees C	104.373 Degrees C
Stnd Dev Btwn Labs	1.560 Degrees C	1.531 Degrees C
Statistics based on 32 of 32 reporting participants		

Sample N83: ABS/PC & Sample N84: ABS/PC

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 #122

Analysis 715

2nd Qtr 2022

Vicat Softening Temperature (Rate A)

WebCode	Data Flag	Sample H83			Sample H84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RUUR		140.20	3.07	0.65	139.93	2.97	0.63	CF
3UMTVG		139.63	2.50	0.53	139.13	2.17	0.46	XX
426DMZ		139.03	1.90	0.40	138.57	1.60	0.34	CE
4GY4HW		138.88	1.75	0.37	138.77	1.80	0.38	WZ
4JMH88		139.20	2.07	0.44	139.23	2.27	0.48	AT
4ZQCD7		140.40	3.27	0.69	140.50	3.53	0.75	CF
6VCZWW		136.43	-0.70	-0.15	136.43	-0.53	-0.11	TO
7K93RT		128.07	-9.07	-1.92	128.23	-8.73	-1.84	CE
98R9WT		138.17	1.03	0.22	137.50	0.53	0.11	TO
99RV6R		138.62	1.49	0.32	138.42	1.45	0.31	RO
DLGMCN		137.40	0.27	0.06	137.32	0.35	0.07	XX
H2DG8D		138.47	1.33	0.28	138.12	1.15	0.24	TO
JWG92A		139.72	2.58	0.55	139.33	2.37	0.50	CE
MDA9NQ		138.68	1.55	0.33	138.60	1.63	0.34	AT
VBZNG4		139.57	2.43	0.52	139.58	2.62	0.55	CE
W2N2X2		126.20	-10.93	-2.32	125.70	-11.27	-2.38	XX
XWP2YW		139.60	2.47	0.52	139.63	2.67	0.56	CE
YND6R6		140.02	2.88	0.61	139.93	2.97	0.63	TO
ZB3AW7		125.10	-12.03	-2.55	124.95	-12.02	-2.54	IN
ZJQ8EY		139.25	2.12	0.45	139.45	2.48	0.52	CF

Summary Statistics		
	Sample H83	Sample H84
Grand Means	137.132 Degrees C	136.967 Degrees C
Stnd Dev Btwn Labs	4.720 Degrees C	4.734 Degrees C
Statistics based on 20 of 20 reporting participants		

Sample H83: ABS/PC & Sample H84: ABS/PC

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

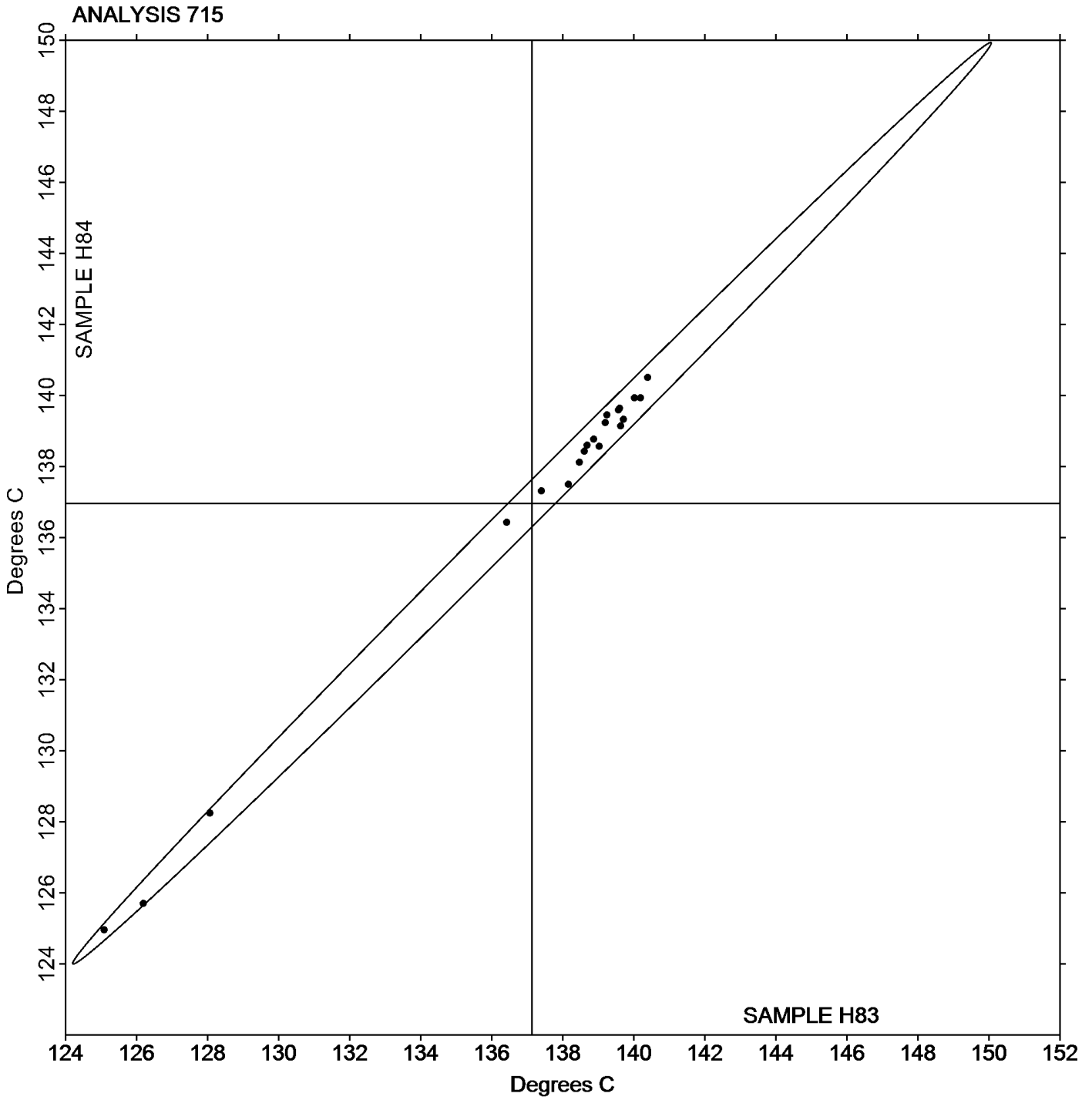
Report #122

Analysis 715

2nd Qtr 2022

Vicat Softening Temperature (Rate A)

Grand Mean Sample H83: 137.13 Degrees C Grand Mean Sample H84: 136.97 Degrees C





Plastics Interlaboratory Testing Program

Report #122

Analysis 716

2nd Qtr 2022

Vicat Softening Temperature (Rate B)

WebCode	Data Flag	Sample R83			Sample R84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RUUR		141.10	2.60	0.50	141.73	3.07	0.60	CF
4GY4HW		140.88	2.39	0.46	140.78	2.12	0.42	CE
4JMH88	*	139.20	0.70	0.14	141.32	2.66	0.52	AT
4ZQCD7		141.47	2.97	0.57	141.70	3.04	0.60	CF
6VCZWW		138.72	0.22	0.04	138.68	0.02	0.00	TO
7K93RT		128.28	-10.21	-1.96	128.43	-10.23	-2.00	CE
98R9WT		139.83	1.34	0.26	139.50	0.84	0.16	TO
99RV6R		139.98	1.48	0.28	139.98	1.32	0.26	RO
DLGMCN		138.70	0.20	0.04	138.90	0.24	0.05	XX
H2DG8D		140.28	1.79	0.34	140.37	1.71	0.33	TO
JWG92A		142.52	4.02	0.77	141.73	3.07	0.60	CE
MDA9NQ		140.55	2.05	0.39	140.55	1.89	0.37	AT
VBZNG4		141.13	2.64	0.51	141.10	2.44	0.48	CE
W2N2X2		127.70	-10.80	-2.07	127.18	-11.48	-2.25	XX
XWP2YW		141.40	2.90	0.56	141.45	2.79	0.55	CE
YND6R6		141.55	3.05	0.59	141.40	2.74	0.54	TO
ZB3AW7		126.50	-12.00	-2.30	127.87	-10.79	-2.11	IN
ZJQ8EY		143.15	4.65	0.89	143.20	4.54	0.89	CF

Summary Statistics		Sample R83	Sample R84
Grand Means		138.497 Degrees C	138.660 Degrees C
Stnd Dev Btwn Labs		5.205 Degrees C	5.107 Degrees C
Statistics based on 18 of 18 reporting participants			

Sample R83: ABS/PC & Sample R84: ABS/PC

Key to Instrument Codes Reported by Participants

- | | |
|-------------------------------------------------|-----------------|
| AT Atlas | CE Ceast |
| CF Coesfeld | IN Instron |
| RO Rosand | TO Tinius Olsen |
| XX Instrument manufacturer not specified by lab | |



Plastics Interlaboratory Testing Program

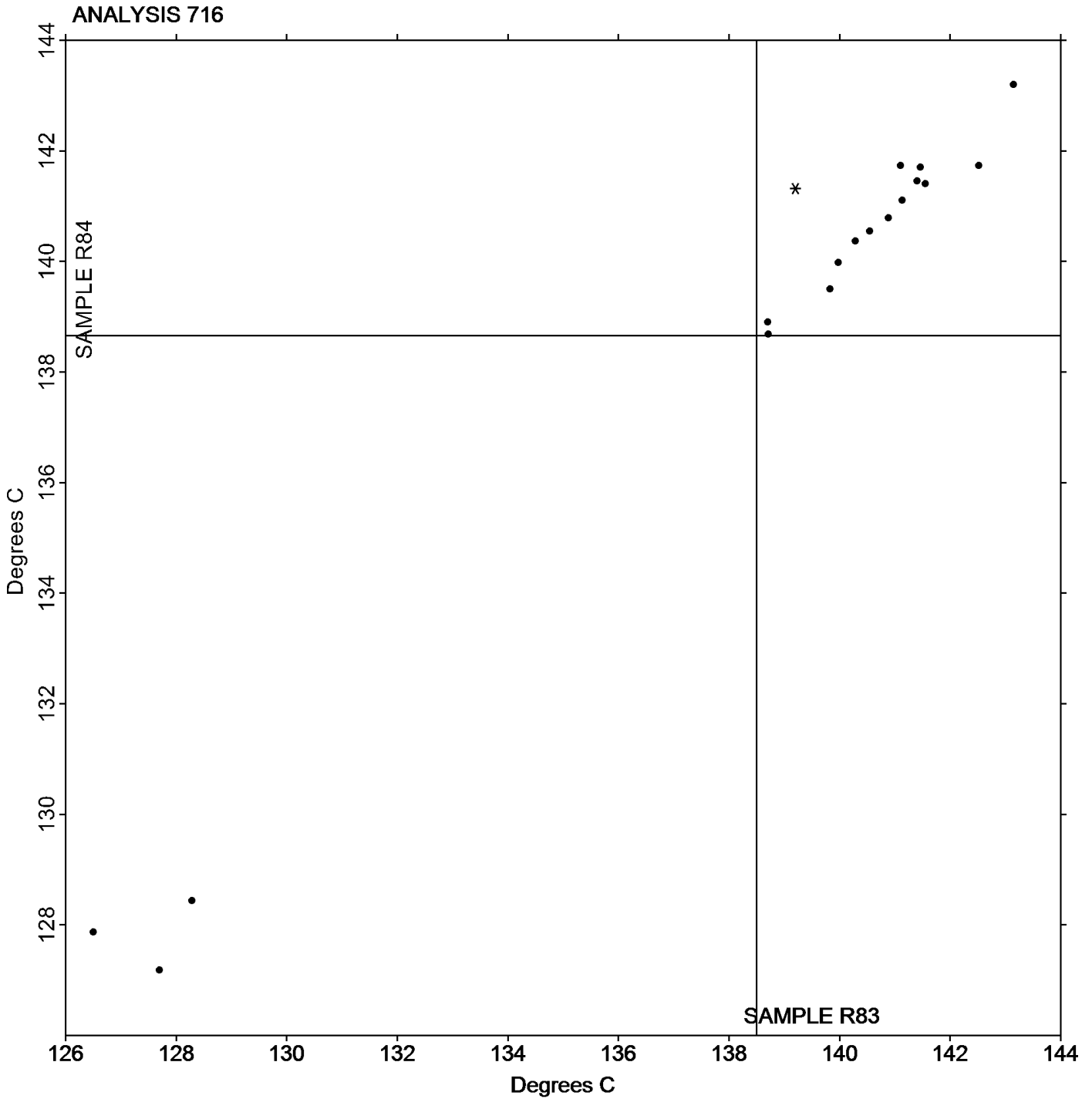
Analysis 716

Vicat Softening Temperature (Rate B)

Report #122

2nd Qtr 2022

Grand Mean Sample R83: 138.50 Degrees C Grand Mean Sample R84: 138.66 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 #122

Analysis 718

2nd Qtr 2022

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T83			Sample T84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24XUGH		1.02900	-0.00065	-0.27	1.03667	0.00139	0.63
2M9ML6		1.02530	-0.00435	-1.80	1.03100	-0.00428	-1.93
2MPVE7		1.02820	-0.00145	-0.60	1.03490	-0.00038	-0.17
3RWTFX		1.03100	0.00135	0.56	1.03700	0.00172	0.78
3UMTVG	*	1.02257	-0.00708	-2.93	1.02903	-0.00625	-2.82
426DMZ		1.03223	0.00258	1.07	1.03800	0.00272	1.23
4GY4HW		1.02800	-0.00165	-0.68	1.03350	-0.00178	-0.80
4HRY67		1.02597	-0.00368	-1.53	1.03103	-0.00425	-1.92
4JMH88		1.03087	0.00122	0.50	1.03743	0.00215	0.97
4U49NP		1.02867	-0.00098	-0.41	1.03333	-0.00195	-0.88
4XG9LF		1.02553	-0.00412	-1.70	1.03167	-0.00361	-1.63
4ZQCD7		1.03163	0.00198	0.82	1.03553	0.00025	0.11
6HL7HG		1.03217	0.00252	1.04	1.03737	0.00209	0.94
8LW3ZN		1.03063	0.00098	0.41	1.03913	0.00385	1.74
8M8ZD7		1.03047	0.00082	0.34	1.03650	0.00122	0.55
8WEKTV	*	1.02980	0.00015	0.06	1.03167	-0.00361	-1.63
94W7LY		1.02787	-0.00178	-0.74	1.03513	-0.00015	-0.07
98R9WT		1.03477	0.00512	2.12	1.03877	0.00349	1.57
997LPW		1.03170	0.00205	0.85	1.03470	-0.00058	-0.26
9D2D2Y		1.03117	0.00152	0.63	1.03750	0.00222	1.00
9NHXKV		1.02633	-0.00332	-1.37	1.03333	-0.00195	-0.88
9U4XUG		1.03100	0.00135	0.56	1.03567	0.00039	0.17
AC2G8V		1.02770	-0.00195	-0.81	1.03403	-0.00125	-0.56
B7XXMB		1.03253	0.00288	1.19	1.03817	0.00289	1.30
BF24JY		1.03000	0.00035	0.14	1.03733	0.00205	0.93
BMGUZJ		1.03093	0.00128	0.53	1.03720	0.00192	0.87
BPQRD2		1.03133	0.00168	0.70	1.03443	-0.00085	-0.38
BT6NLN		1.03050	0.00085	0.35	1.03743	0.00215	0.97
CGLGEL	X	1.02633	-0.00332	-1.37	1.04267	0.00739	3.34
CGQQEY		1.02673	-0.00292	-1.21	1.03367	-0.00161	-0.73
CUEX8T		1.03110	0.00145	0.60	1.03700	0.00172	0.78
DLGMCN		1.02400	-0.00565	-2.34	1.03083	-0.00445	-2.01
DMD24M		1.03087	0.00122	0.50	1.03520	-0.00008	-0.04
DVPZTR		1.02900	-0.00065	-0.27	1.03400	-0.00128	-0.58
EUNN7N	X	1.02300	-0.00665	-2.75	1.03533	0.00005	0.02



Plastics Interlaboratory Testing Program

Report #122

Analysis 718

2nd Qtr 2022

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T83			Sample T84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FGXAML	X	1.02000	-0.00965	-4.00	1.03000	-0.00528	-2.38
H2DG8D		1.03097	0.00132	0.55	1.03780	0.00252	1.14
H2F23T		1.03053	0.00088	0.37	1.03340	-0.00188	-0.85
H34QVK		1.03033	0.00068	0.28	1.03533	0.00005	0.02
HGKJKR	X	1.03333	0.00368	1.53	1.02800	-0.00728	-3.29
JK2GFL		1.03203	0.00238	0.99	1.03433	-0.00095	-0.43
JLWV7K	X	1.02220	-0.00745	-3.09	1.03767	0.00239	1.08
JWG92A	*	1.03567	0.00602	2.49	1.03900	0.00372	1.68
L7YKCD		1.03207	0.00242	1.00	1.03753	0.00225	1.02
MDA9NQ		1.02993	0.00028	0.12	1.03420	-0.00108	-0.49
NA6ZRE		1.02867	-0.00098	-0.41	1.03500	-0.00028	-0.13
NXW37Z		1.02893	-0.00072	-0.30	1.03437	-0.00091	-0.41
PDMNMC		1.03030	0.00065	0.27	1.03763	0.00235	1.06
PVLQFA		1.03037	0.00072	0.30	1.03563	0.00035	0.16
QALTMA	X	1.02067	-0.00898	-3.72	1.03033	-0.00495	-2.23
QRWUD2		1.03120	0.00155	0.64	1.03707	0.00179	0.81
QXRGDG		1.03000	0.00035	0.14	1.03600	0.00072	0.32
RAFXG9		1.03057	0.00092	0.38	1.03663	0.00135	0.61
RF2XQU		1.02947	-0.00018	-0.08	1.03537	0.00009	0.04
TABNGV		1.03047	0.00082	0.34	1.03663	0.00135	0.61
TGU7HA		1.02600	-0.00365	-1.51	1.03167	-0.00361	-1.63
U6VLMB		1.03140	0.00175	0.72	1.03727	0.00199	0.90
UAPUVC		1.02867	-0.00098	-0.41	1.03427	-0.00101	-0.46
UAQJ4F		1.03215	0.00250	1.03	1.03752	0.00224	1.01
V37QJ3		1.02823	-0.00142	-0.59	1.03333	-0.00195	-0.88
VBZNG4		1.02870	-0.00095	-0.39	1.03480	-0.00048	-0.22
VMC4FV	X	1.03527	0.00562	2.33	1.03017	-0.00511	-2.31
VUE7MH		1.02800	-0.00165	-0.68	1.03400	-0.00128	-0.58
VVLMG8		1.03077	0.00112	0.46	1.03657	0.00129	0.58
VZERAB		1.02723	-0.00242	-1.00	1.03380	-0.00148	-0.67
W34BV9		1.03367	0.00402	1.66	1.03667	0.00139	0.63
WWBCGD		1.02720	-0.00245	-1.01	1.03513	-0.00015	-0.07
XL8K7Q		1.02927	-0.00038	-0.16	1.03390	-0.00138	-0.62
XNZAVD		1.02717	-0.00248	-1.03	1.03453	-0.00075	-0.34
XU3J26	X	1.04063	0.01098	4.55	1.04907	0.01379	6.23



Plastics Interlaboratory Testing Program

Report #122

Analysis 718

2nd Qtr 2022

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T83			Sample T84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
XWP2YW		1.03070	0.00105	0.43	1.03740	0.00212	0.96
XZ8GBA		1.03187	0.00222	0.92	1.03797	0.00269	1.21
YMYWMB		1.02933	-0.00032	-0.13	1.03400	-0.00128	-0.58
YND6R6		1.02500	-0.00465	-1.93	1.03300	-0.00228	-1.03
Z4ZEJY		1.03000	0.00035	0.14	1.03667	0.00139	0.63
Z6WHM9		1.02976	0.00011	0.05	1.03250	-0.00278	-1.26
ZJQ8EY		1.02700	-0.00265	-1.10	1.03300	-0.00228	-1.03
ZU9YUV		1.03233	0.00268	1.11	1.03760	0.00232	1.05

Summary Statistics

	Sample T83	Sample T84
Grand Means	1.029650 sp gr 23/23 C	1.035281 sp gr 23/23 C
Std Dev Btwn Labs	0.002415 sp gr 23/23 C	0.002214 sp gr 23/23 C

Statistics based on 70 of 78 reporting participants

Sample T83: HIPS & Sample T84: HIPS

Comments on Assigned Data Flags for Test #718

- XU3J26 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample T83.
- QALTMA (X) - Data for sample T83 are low. Inconsistent within the determinations of both samples.
- JLWV7K (X) - Data for sample T83 are low.
- VMC4FV (X) - Inconsistent in testing between samples.
- CGLGEL (X) - Data for sample T84 are high. Inconsistent within the determinations of sample T84.
- EUNN7N (X) - Data for sample T83 are low.
- FGXAML (X) - Data for sample T83 are low.
- HGKJKR (X) - Data for sample T84 are low.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample T83 <i>HIPS</i>			Sample T84 <i>HIPS</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)	1.029869	0.002401	0.000	1.035379	0.002213	0.000	56/59
ASTM D792 Method B (not water)	1.025633	0.004337	-0.004	1.031917	0.004078	-0.003	2/3
ISO 1183	1.029236	0.001717	0.000	1.035206	0.001580	0.000	11/15



Plastics Interlaboratory Testing Program

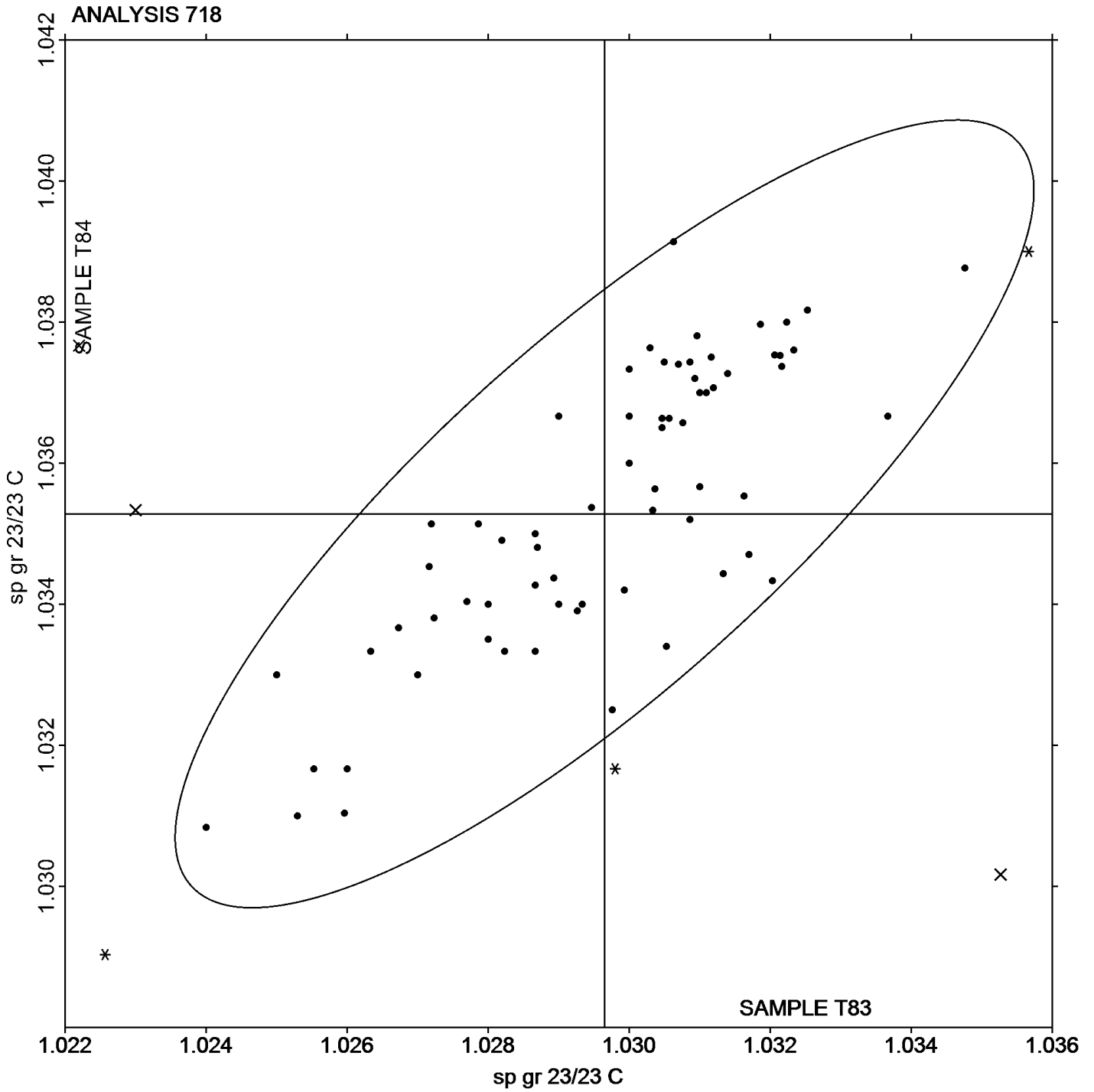
Report #122

Analysis 718

2nd Qtr 2022

Specific Gravity - sp gr 23/23 C

Grand Mean Sample T83: 1.0297 sp gr 23/23 C Grand Mean Sample T84: 1.0353 sp gr 23/23 C





Plastics Interlaboratory Testing Program

Report #122

Analysis 720

2nd Qtr 2022

Flexural Modulus- ksi

WebCode	Data Flag	Sample J83			Sample J84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		327.1	-8.4	-0.50	324.1	-10.9	-0.65
2MRHZZ	X	316.5	-19.0	-1.14	329.8	-5.2	-0.31
3RWTFX		338.6	3.1	0.19	340.7	5.6	0.33
426DMZ		331.0	-4.5	-0.27	328.7	-6.4	-0.38
4FN9UJ	X	336.0	0.5	0.03	293.7	-41.4	-2.45
4GY4HW	X	302.4	-33.1	-1.98	323.9	-11.2	-0.66
4JMH88		325.8	-9.7	-0.58	325.8	-9.2	-0.55
4XG9LF		316.7	-18.8	-1.12	317.3	-17.7	-1.05
4ZQCD7		343.2	7.8	0.46	342.5	7.4	0.44
6ENP89		344.4	8.9	0.53	345.6	10.5	0.62
7CAURU		311.7	-23.8	-1.42	312.4	-22.6	-1.34
8LW3ZN		331.4	-4.1	-0.25	333.2	-1.9	-0.11
94W7LY	*	348.0	12.5	0.75	341.1	6.0	0.36
99RV6R		336.5	1.0	0.06	338.4	3.3	0.20
9U4XUG		341.7	6.2	0.37	341.1	6.1	0.36
9U8J8N		326.2	-9.3	-0.56	325.4	-9.7	-0.57
AC2G8V		335.1	-0.4	-0.03	330.8	-4.3	-0.25
AVUH2D		314.7	-20.8	-1.25	314.0	-21.0	-1.24
B7XXMB		333.4	-2.1	-0.13	333.0	-2.1	-0.12
BMGUZJ		344.5	9.0	0.54	344.4	9.3	0.55
BPQRD2		353.5	18.0	1.08	354.1	19.0	1.13
BT6NLN		343.9	8.4	0.50	344.0	8.9	0.53
DLGMCN	X	258.4	-77.1	-4.62	326.4	-8.7	-0.51
DZQMVR		321.6	-13.9	-0.83	319.8	-15.3	-0.90
EUNN7N	*	328.6	-6.9	-0.42	334.5	-0.5	-0.03
FUG27L		317.1	-18.4	-1.10	315.5	-19.5	-1.16
H2DG8D		355.1	19.6	1.17	351.6	16.5	0.98
H2F23T		342.8	7.3	0.44	340.7	5.7	0.34
JAHUHD		340.5	5.0	0.30	340.2	5.1	0.30
JWG92A	*	304.4	-31.1	-1.86	299.1	-36.0	-2.13
JXDMQM		360.1	24.6	1.47	355.9	20.8	1.23
MDA9NQ		322.1	-13.4	-0.80	321.8	-13.2	-0.78
PDMNMC		318.9	-16.6	-1.00	319.8	-15.2	-0.90
PMVYGW		333.4	-2.1	-0.13	332.6	-2.5	-0.15
PVLQFA		348.7	13.2	0.79	348.5	13.4	0.80



Plastics Interlaboratory Testing Program

Report #122

Analysis 720

2nd Qtr 2022

Flexural Modulus- ksi

WebCode	Data Flag	Sample J83			Sample J84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QWRLJD		338.5	3.0	0.18	340.6	5.5	0.33
QXRGDG		362.5	27.0	1.62	364.9	29.9	1.77
RF2XQU		363.6	28.1	1.68	361.8	26.7	1.58
RLPHYF		355.8	20.3	1.21	355.0	19.9	1.18
TABNGV		323.7	-11.8	-0.71	324.0	-11.1	-0.65
TGU7HA		336.5	1.0	0.06	335.6	0.6	0.03
UA2FG7		310.3	-25.2	-1.51	311.4	-23.7	-1.40
W34BV9		339.4	3.9	0.23	339.7	4.7	0.28
W8VPDN		325.1	-10.4	-0.62	324.0	-11.1	-0.66
XWP2YW		314.7	-20.8	-1.25	314.7	-20.4	-1.20
XZ8GBA		339.1	3.6	0.21	342.2	7.1	0.42
YDQBDM	X	390.7	55.2	3.31	372.6	37.6	2.22
YND6R6		329.4	-6.1	-0.37	329.2	-5.9	-0.35
Z3RTHE		366.8	31.3	1.87	366.3	31.2	1.85
ZB3AW7		345.2	9.7	0.58	342.4	7.3	0.43
ZCPZPX	*	375.3	39.8	2.38	378.4	43.3	2.56
ZJQ8EY		301.8	-33.7	-2.02	301.0	-34.1	-2.02

Summary Statistics

	Sample J83	Sample J84
Grand Means	335.49 ksi	335.06 ksi
Std Dev Btwn Labs	16.69 ksi	16.90 ksi

Statistics based on 47 of 52 reporting participants

Sample J83: ABS/PC & Sample J84: ABS/PC

Comments on Assigned Data Flags for Test #720

- 4GY4HW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J84.
- 4FN9UJ (X) - Inconsistent in testing between samples.
- DLGMCN (X) - Data for sample J83 are low. Inconsistent in testing between samples.
- YDQBDM (X) - Data for sample J83 are high. Inconsistent in testing between samples.
- 2MRHZZ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J84.

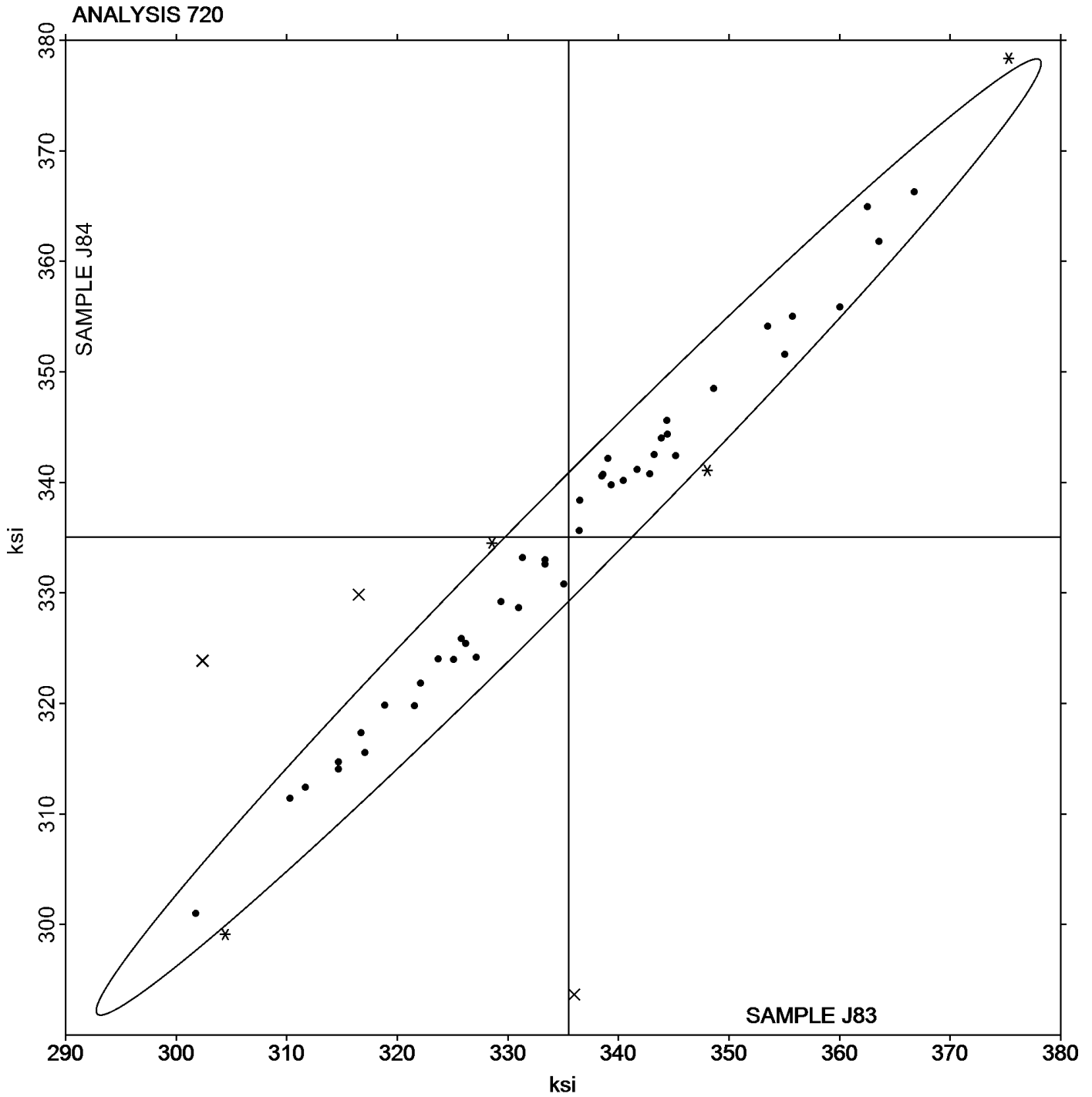


Plastics Interlaboratory Testing Program

Analysis 720 Flexural Modulus- ksi

Report #122
2nd Qtr 2022

Grand Mean Sample J83: 335.49 ksi Grand Mean Sample J84: 335.06 ksi





Plastics Interlaboratory Testing Program

Report #122

Analysis 721

2nd Qtr 2022

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J83			Sample J84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		11,943	269	0.51	11,768	128	0.27
2MRHZZ		11,395	-278	-0.52	11,525	-115	-0.24
4FN9UJ		10,757	-916	-1.73	10,766	-873	-1.80
4GY4HW		12,201	527	0.99	12,036	396	0.82
4JMH88		11,804	130	0.25	11,911	271	0.56
4XG9LF		11,168	-506	-0.95	11,382	-257	-0.53
4ZQCD7		11,835	162	0.30	11,748	109	0.22
6ENP89		11,834	160	0.30	11,794	155	0.32
7CAURU		12,032	359	0.68	12,035	396	0.82
8LW3ZN		12,086	412	0.78	12,094	455	0.94
94W7LY	*	12,245	572	1.08	11,911	272	0.56
99RV6R		11,893	220	0.41	11,922	283	0.58
9U8J8N		11,160	-514	-0.97	11,159	-480	-0.99
AC2G8V		11,427	-246	-0.46	11,363	-276	-0.57
AVUH2D		10,887	-786	-1.48	10,889	-751	-1.55
B7XXMB		11,060	-614	-1.16	10,960	-679	-1.40
BMGUZJ		11,487	-186	-0.35	11,588	-51	-0.11
BPQRD2		11,897	223	0.42	11,944	305	0.63
BT6NLN	X	10,970	-703	-1.33	10,345	-1,294	-2.67
DLGMCN	X	8,883	-2,791	-5.27	11,530	-109	-0.23
DZQMVR		10,900	-774	-1.46	10,864	-776	-1.60
EUNN7N		10,968	-705	-1.33	11,070	-569	-1.17
FUG27L		11,890	217	0.41	12,064	425	0.88
H2DG8D		11,766	92	0.17	11,672	33	0.07
H2F23T		11,665	-8	-0.02	11,564	-76	-0.16
JAHUHD		11,703	29	0.06	11,649	10	0.02
JWG92A		11,669	-5	-0.01	11,517	-123	-0.25
JXDMQM		12,518	844	1.59	12,310	671	1.38
MDA9NQ		11,053	-621	-1.17	11,018	-621	-1.28
PDMNMC		11,419	-254	-0.48	11,405	-234	-0.48
PMVYGW		10,980	-694	-1.31	10,980	-659	-1.36
QWRLJD		12,520	846	1.60	12,500	861	1.78
QXRGDG		11,707	34	0.06	11,718	79	0.16
RLPHYF		12,653	980	1.85	12,479	840	1.73
TABNGV		11,269	-404	-0.76	11,271	-368	-0.76



Plastics Interlaboratory Testing Program

Report #122

Analysis 721

2nd Qtr 2022

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J83			Sample J84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
UA2FG7		11,949	275	0.52	11,962	323	0.67
W8VPDN		11,143	-530	-1.00	11,160	-479	-0.99
XWP2YW		11,564	-110	-0.21	11,554	-86	-0.18
XZ8GBA		11,071	-602	-1.14	10,961	-678	-1.40
YDQBDM	*	12,964	1,290	2.43	12,616	976	2.02
YND6R6		11,480	-194	-0.37	11,480	-159	-0.33
ZB3AW7		12,080	406	0.77	12,000	361	0.74
ZCPZPX		11,802	128	0.24	11,857	218	0.45
ZJQ8EY		12,446	772	1.46	12,382	743	1.53

Summary Statistics

	Sample J83	Sample J84
Grand Means	11,673.6 psi	11,639.2 psi
Stnd Dev Btwn Labs	530.1 psi	484.4 psi

Statistics based on 42 of 44 reporting participants

Sample J83: ABS/PC & Sample J84: ABS/PC

Comments on Assigned Data Flags for Test #721

BT6NLN (X) - Inconsistent in testing between samples.

DLGMCN (X) - Data for sample J83 are low. Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

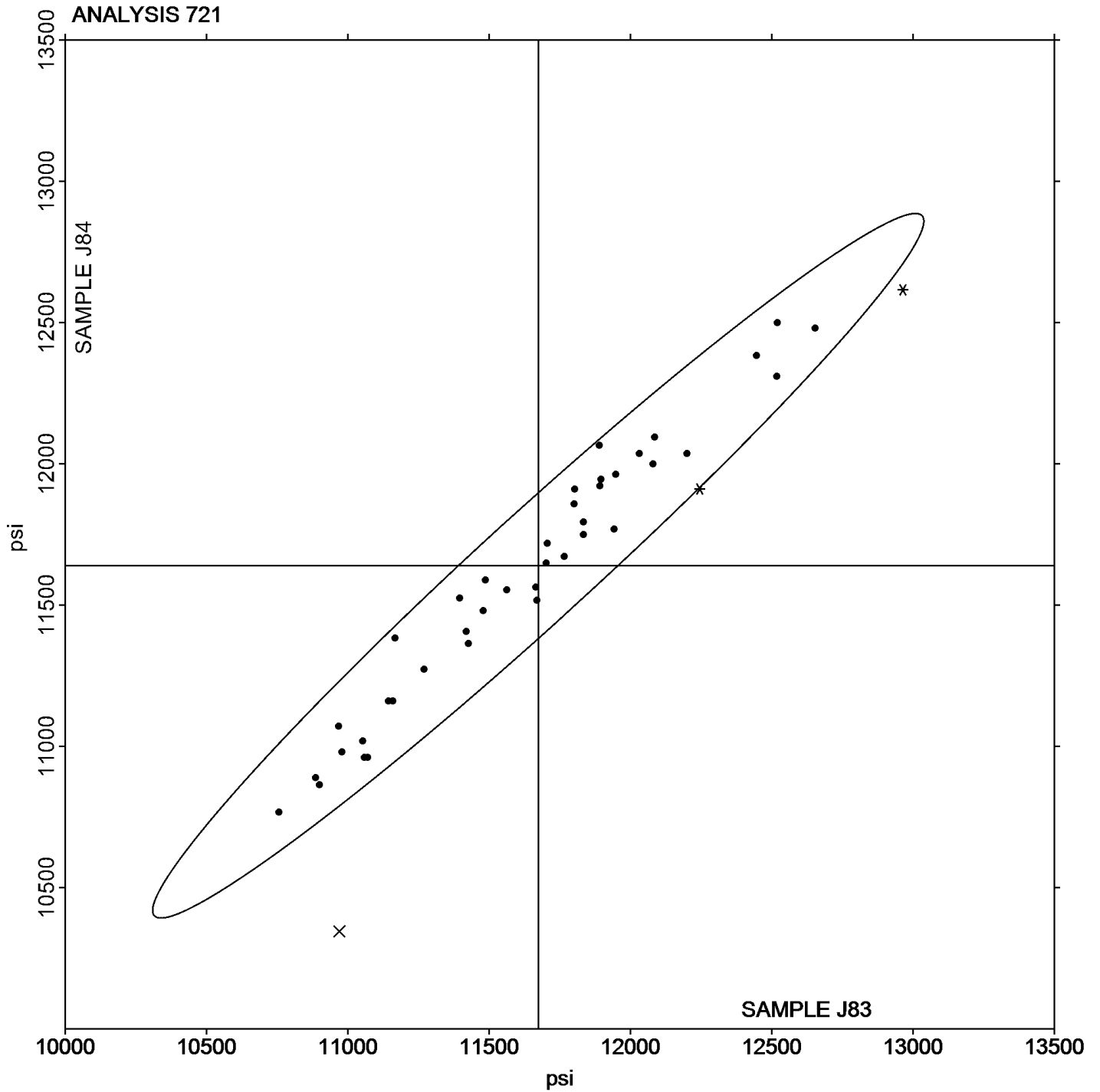
Report #122

Analysis 721

2nd Qtr 2022

Flexural Stress at 5% Strain - psi

Grand Mean Sample J83: 11,673.61 psi Grand Mean Sample J84: 11,639.23 psi





Plastics Interlaboratory Testing Program

Report #122

Analysis 722

2nd Qtr 2022

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J83			Sample J84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22PKMZ		12,214	349	0.59	12,004	162	0.29
2MRHZZ	X	8,086	-3,779	-6.39	8,526	-3,316	-5.89
3RWTFX	*	12,207	342	0.58	12,523	681	1.21
4FN9UJ		10,819	-1,047	-1.77	10,889	-953	-1.69
4GY4HW		12,576	711	1.20	12,422	581	1.03
4JMH88		12,147	282	0.48	12,367	525	0.93
4XG9LF		11,612	-253	-0.43	11,770	-72	-0.13
4ZQCD7		12,038	173	0.29	11,893	51	0.09
7CAURU		12,139	274	0.46	12,067	226	0.40
8LW3ZN		11,247	-618	-1.05	11,257	-585	-1.04
99RV6R		11,922	57	0.10	11,951	109	0.19
9U8J8N		11,747	-118	-0.20	11,747	-95	-0.17
AVUH2D		11,093	-772	-1.31	11,099	-743	-1.32
BPQRD2		12,065	200	0.34	12,130	288	0.51
BT6NLN	X	11,085	-781	-1.32	10,396	-1,446	-2.57
DZQMVR		10,965	-900	-1.52	10,918	-923	-1.64
EUNN7N		10,972	-893	-1.51	11,072	-770	-1.37
FUG27L		12,131	266	0.45	12,064	222	0.40
H2DG8D		11,757	-108	-0.18	11,725	-117	-0.21
JAHUHD		12,069	204	0.35	12,010	168	0.30
JWG92A		11,759	-106	-0.18	11,641	-201	-0.36
JXDMQM		12,518	653	1.10	12,503	662	1.18
MDA9NQ		11,261	-604	-1.02	11,250	-591	-1.05
PDMNMC		11,677	-188	-0.32	11,644	-198	-0.35
PVLQFA		11,598	-267	-0.45	11,621	-221	-0.39
QWRLJD		12,734	869	1.47	12,743	901	1.60
RF2XQU		12,098	233	0.39	12,008	166	0.30
RLPHYF		12,552	687	1.16	12,274	432	0.77
TABNGV		11,643	-222	-0.38	11,674	-167	-0.30
UA2FG7		12,058	193	0.33	12,048	206	0.37
W8VPDN		10,739	-1,126	-1.90	10,768	-1,074	-1.91
XWP2YW		11,564	-302	-0.51	11,553	-289	-0.51
XZ8GBA		11,301	-565	-0.96	11,104	-738	-1.31
YDQBDM	*	13,321	1,456	2.46	13,059	1,217	2.16
YND6R6		11,480	-385	-0.65	11,480	-362	-0.64



Plastics Interlaboratory Testing Program

Report #122

Analysis 722

2nd Qtr 2022

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J83			Sample J84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Z3RTHE		12,023	158	0.27	12,048	206	0.37
ZB3AW7		12,240	375	0.63	12,180	338	0.60
ZCPZPX	X	8,876	-2,989	-5.06	8,438	-3,404	-6.05
ZJQ8EY		12,860	995	1.68	12,800	958	1.70

Summary Statistics		Sample J83	Sample J84
Grand Means		11,865.2 psi	11,841.9 psi
Stnd Dev Btwn Labs		591.1 psi	562.8 psi
Statistics based on 36 of 39 reporting participants			

Sample J83: ABS/PC & Sample J84: ABS/PC

Comments on Assigned Data Flags for Test #722

- BT6NLN (X) - Inconsistent in testing between samples.
- ZCPZPX (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample J83.
- 2MRHZZ (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

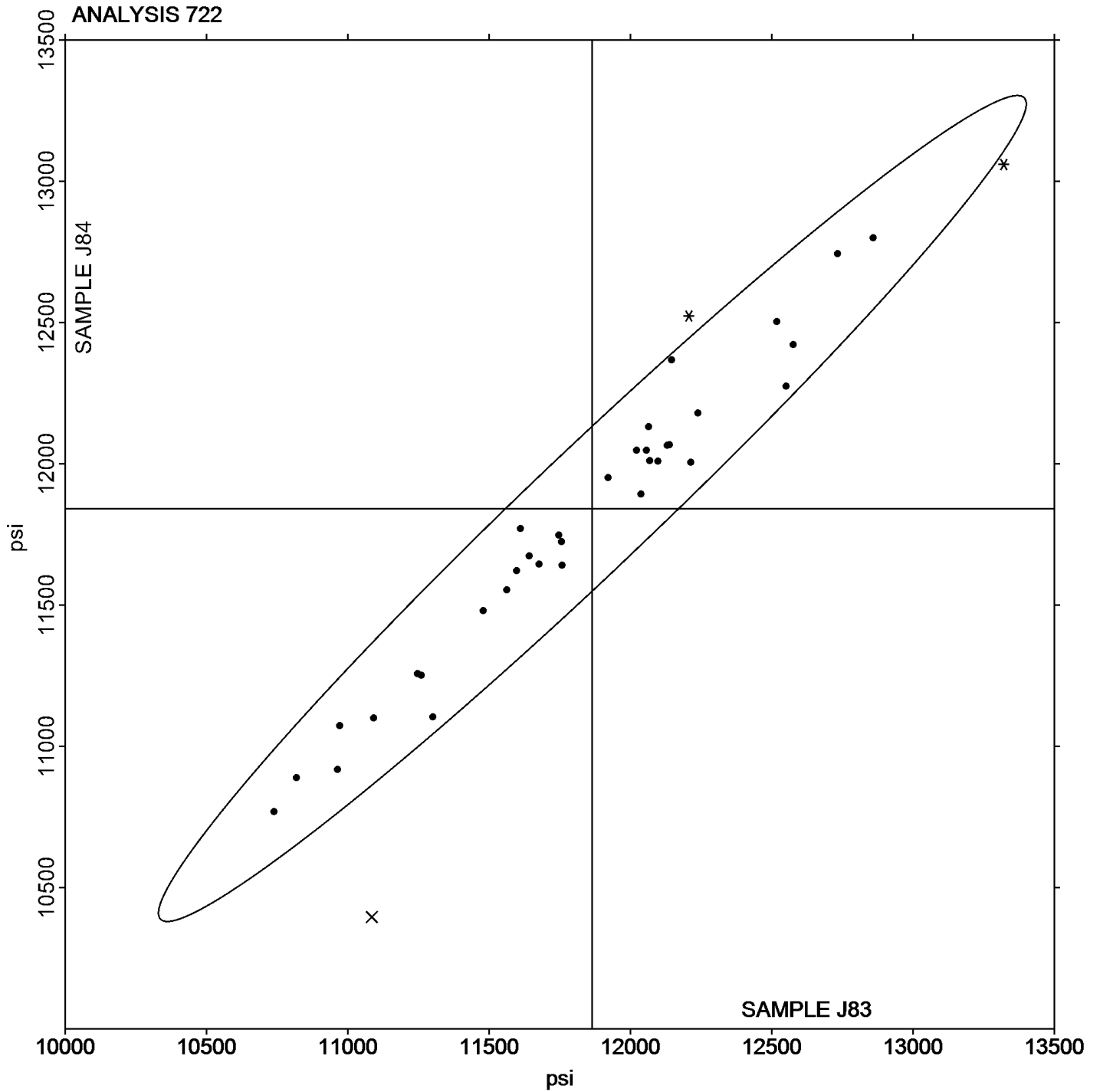
Analysis 722

Flexural Stress at Yield - psi

Report #122

2nd Qtr 2022

Grand Mean Sample J83: 11,865.18 psi Grand Mean Sample J84: 11,841.87 psi





Plastics Interlaboratory Testing Program

Report #122

Analysis 730

2nd Qtr 2022

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		49.86	0.31	0.36	50.04	0.44	0.49
426DMZ		48.50	-1.05	-1.20	48.75	-0.85	-0.93
4JMH88		49.88	0.33	0.38	49.78	0.18	0.20
4ZQCD7		50.00	0.44	0.51	50.09	0.49	0.54
7MCVK7	X	48.66	-0.89	-1.02	49.57	-0.03	-0.03
83J9MW		51.40	1.85	2.12	51.40	1.80	1.97
94W7LY		49.29	-0.27	-0.31	49.61	0.01	0.02
9U4XUG		49.78	0.22	0.26	50.07	0.47	0.52
A7DUEB		50.69	1.13	1.30	50.81	1.21	1.33
AC2G8V		48.26	-1.29	-1.48	48.30	-1.30	-1.42
AVUH2D		48.52	-1.03	-1.19	48.33	-1.27	-1.39
BE7REJ		48.03	-1.53	-1.75	47.88	-1.72	-1.88
BPQRD2		49.02	-0.54	-0.62	49.06	-0.54	-0.59
CGLGEL		48.62	-0.93	-1.07	48.64	-0.96	-1.05
D6VZ9L	X	47.48	-2.07	-2.38	48.58	-1.02	-1.12
ENHVED		49.80	0.25	0.28	49.64	0.04	0.05
F7UYDB		49.08	-0.47	-0.54	49.40	-0.20	-0.22
FGXAML	*	51.81	2.25	2.59	52.05	2.45	2.68
G9JTQ6		49.58	0.03	0.04	49.62	0.02	0.02
H2DG8D		49.45	-0.10	-0.11	49.48	-0.12	-0.13
H34QVK		49.88	0.33	0.38	49.72	0.12	0.13
H68GZE		48.83	-0.72	-0.83	48.66	-0.94	-1.03
HGKJKR		51.34	1.79	2.05	51.46	1.86	2.04
JLWV7K		49.76	0.21	0.24	49.65	0.05	0.05
JWG92A		48.38	-1.17	-1.34	48.30	-1.30	-1.42
MBKVUM		48.86	-0.69	-0.79	49.08	-0.52	-0.57
PEEHM2		49.32	-0.24	-0.27	49.52	-0.08	-0.09
PLFUHX	*	48.49	-1.06	-1.22	48.98	-0.62	-0.68
QRWUD2		48.64	-0.91	-1.04	48.61	-0.99	-1.08
R9JGBD		49.62	0.07	0.08	49.66	0.06	0.07
RAFXG9		50.13	0.58	0.67	50.11	0.51	0.56
RF2XQU		49.79	0.23	0.27	49.95	0.35	0.38
TABNGV		50.25	0.70	0.80	50.31	0.71	0.77
TGU7HA		49.84	0.29	0.33	49.64	0.04	0.04
THL36H		50.34	0.78	0.90	50.41	0.81	0.89



Plastics Interlaboratory Testing Program

Report #122

Analysis 730

2nd Qtr 2022

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
UAPUVC		49.02	-0.53	-0.61	48.76	-0.84	-0.92
V37QJ3		49.88	0.33	0.38	49.67	0.07	0.08
VD4QZD		49.10	-0.45	-0.52	48.94	-0.66	-0.72
VG6MQ9	X	49.99	0.43	0.50	49.26	-0.34	-0.38
VUE7MH		51.22	1.67	1.92	51.14	1.54	1.69
VVLMG8	X	53.71	4.16	4.78	53.67	4.07	4.46
W4VEGN	*	49.61	0.05	0.06	50.19	0.59	0.64
WE9MW2		49.48	-0.07	-0.08	49.48	-0.12	-0.13
WM79AV		50.78	1.23	1.41	51.12	1.52	1.66
XL8K7Q		49.59	0.04	0.05	49.69	0.09	0.10
XWP2YW		48.39	-1.17	-1.34	48.22	-1.38	-1.51
YND6R6		48.84	-0.71	-0.82	48.99	-0.61	-0.67
ZB3AW7		49.68	0.13	0.15	49.44	-0.16	-0.18
ZJQ8EY		49.52	-0.03	-0.04	49.76	0.16	0.18
ZNQ9TA		49.25	-0.30	-0.35	49.17	-0.43	-0.47

Summary Statistics		
	Sample C83	Sample C84
Grand Means	49.552 MPa	49.600 MPa
Stnd Dev Btwn Labs	0.870 MPa	0.914 MPa
Statistics based on 46 of 50 reporting participants		

Sample C83: ABS/PC & Sample C84: ABS/PC

Comments on Assigned Data Flags for Test #730

- D6VZ9L (X) - Inconsistent in testing between samples.
- VG6MQ9 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C83.
- 7MCKV7 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- VVLMG8 (X) - Data for both samples are high. Possible Systematic Error.



Plastics Interlaboratory Testing Program

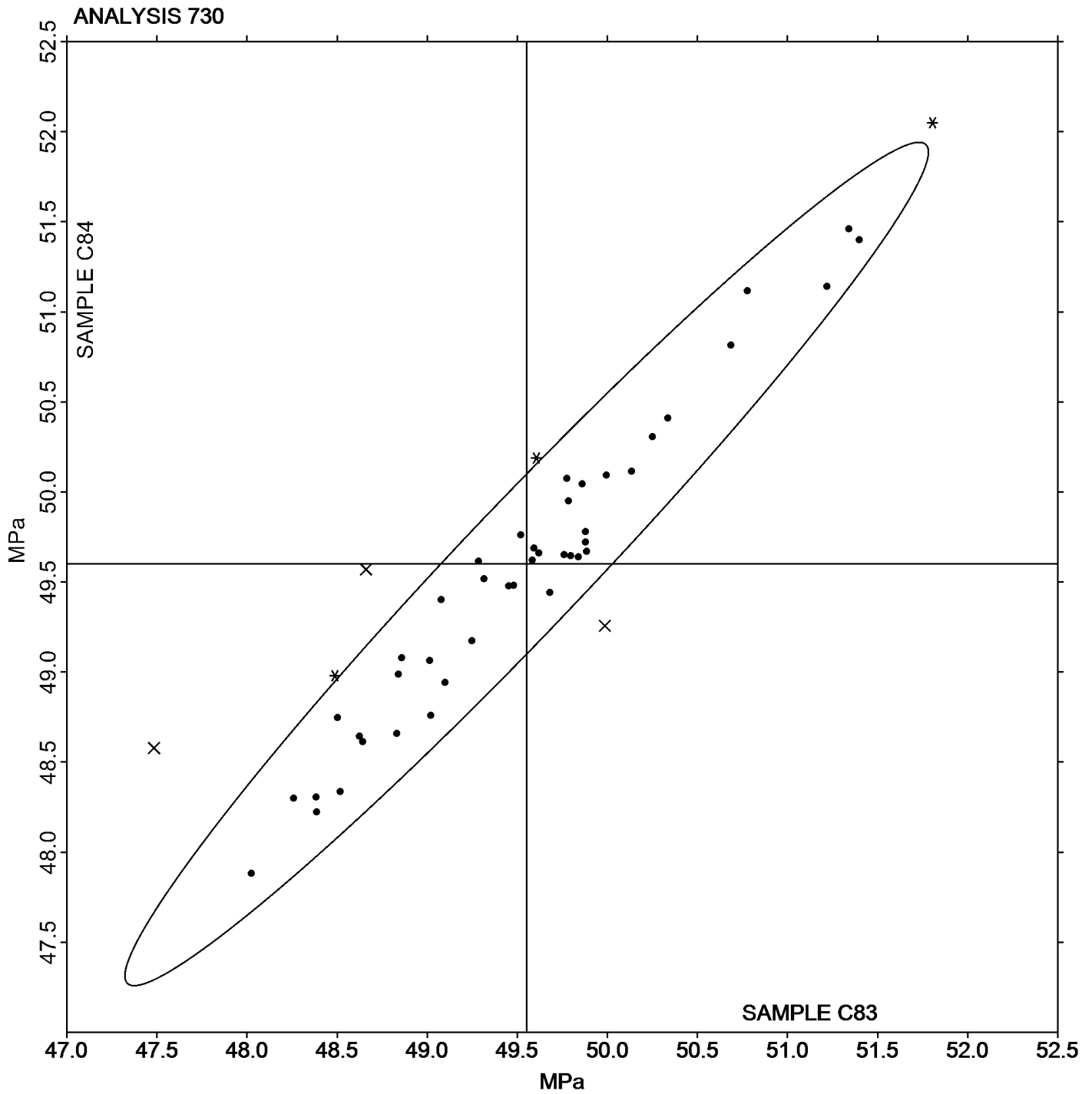
Analysis 730

Tensile Stress at Yield - MPa

Report #122

2nd Qtr 2022

Grand Mean Sample C83: 49.552 MPa Grand Mean Sample C84: 49.600 MPa





Plastics Interlaboratory Testing Program

Report #122

Analysis 731

2nd Qtr 2022

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		48.69	2.31	0.94	47.72	0.93	0.37
3PULJZ		42.04	-4.34	-1.77	41.76	-5.03	-1.98
426DMZ		46.15	-0.23	-0.09	45.79	-1.00	-0.39
4JMH88		47.34	0.96	0.39	46.74	-0.05	-0.02
4ZQCD7	*	51.65	5.27	2.14	47.53	0.74	0.29
7MCVK7		48.87	2.49	1.01	47.66	0.87	0.34
83J9MW		50.80	4.42	1.80	50.40	3.61	1.42
94W7LY		49.41	3.02	1.23	49.75	2.96	1.16
A7DUEB		45.22	-1.16	-0.47	45.19	-1.60	-0.63
AC2G8V		46.08	-0.30	-0.12	47.02	0.23	0.09
AVUH2D		42.72	-3.66	-1.49	41.96	-4.83	-1.90
BE7REJ		43.66	-2.72	-1.11	43.64	-3.15	-1.24
BPQRD2		46.16	-0.23	-0.09	48.72	1.92	0.76
CGLGEL		44.46	-1.92	-0.78	45.92	-0.87	-0.34
CUEX8T		48.22	1.84	0.75	49.20	2.41	0.95
D6VZ9L		42.48	-3.90	-1.59	43.60	-3.19	-1.25
ENHVED		47.35	0.97	0.39	50.04	3.25	1.28
F7UYDB		48.44	2.06	0.84	46.80	0.01	0.00
FGXAML	X	127.42	81.04	32.96	178.94	132.15	51.90
G9JTQ6		43.45	-2.93	-1.19	43.01	-3.79	-1.49
H2DG8D	*	45.01	-1.38	-0.56	50.83	4.04	1.59
H34QVK		45.66	-0.72	-0.29	46.80	0.01	0.00
H68GZE		43.08	-3.30	-1.34	42.32	-4.47	-1.76
HGKJKR		47.04	0.66	0.27	47.54	0.75	0.29
JLWV7K		48.28	1.89	0.77	46.51	-0.28	-0.11
JWG92A		47.20	0.82	0.33	46.80	0.01	0.00
MBKVUM		46.60	0.22	0.09	50.34	3.55	1.39
PEEHM2		43.94	-2.44	-0.99	44.38	-2.41	-0.95
PLFUHX		49.75	3.36	1.37	50.27	3.48	1.37
R9JGBD		43.40	-2.98	-1.21	43.42	-3.37	-1.32
RAFXG9		46.06	-0.32	-0.13	47.59	0.80	0.31
TABNGV		45.95	-0.44	-0.18	45.99	-0.80	-0.31
THL36H		45.21	-1.17	-0.48	45.63	-1.16	-0.45
UAPUVC		43.34	-3.04	-1.24	45.80	-0.99	-0.39
V37QJ3		46.68	0.30	0.12	46.56	-0.23	-0.09



Plastics Interlaboratory Testing Program

Report #122

Analysis 731

2nd Qtr 2022

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
VBZNG4		51.13	4.75	1.93	48.87	2.08	0.82
VD4QZD		46.74	0.36	0.15	46.94	0.15	0.06
VG6MQ9		49.91	3.52	1.43	47.44	0.65	0.25
VUE7MH		47.39	1.01	0.41	46.24	-0.55	-0.21
VVLMG8	*	48.02	1.63	0.66	52.66	5.87	2.31
WE9MW2		44.54	-1.84	-0.75	44.54	-2.25	-0.88
WM79AV		45.49	-0.90	-0.36	46.06	-0.73	-0.29
XL8K7Q		47.71	1.33	0.54	50.19	3.40	1.33
XWP2YW		49.10	2.71	1.10	49.63	2.84	1.12
YND6R6		43.39	-2.99	-1.21	46.21	-0.58	-0.23
ZB3AW7		48.24	1.86	0.76	48.78	1.99	0.78
ZJQ8EY		44.38	-2.00	-0.81	45.06	-1.73	-0.68
ZNQ9TA		43.52	-2.86	-1.16	43.30	-3.49	-1.37

Summary Statistics		
	Sample C83	Sample C84
Grand Means	46.381 MPa	46.791 MPa
Std Dev Btwn Labs	2.459 MPa	2.546 MPa
Statistics based on 47 of 48 reporting participants		

Sample C83: ABS/PC & Sample C84: ABS/PC

Comments on Assigned Data Flags for Test #731

FGXAML (X) - Extreme data.



Plastics Interlaboratory Testing Program

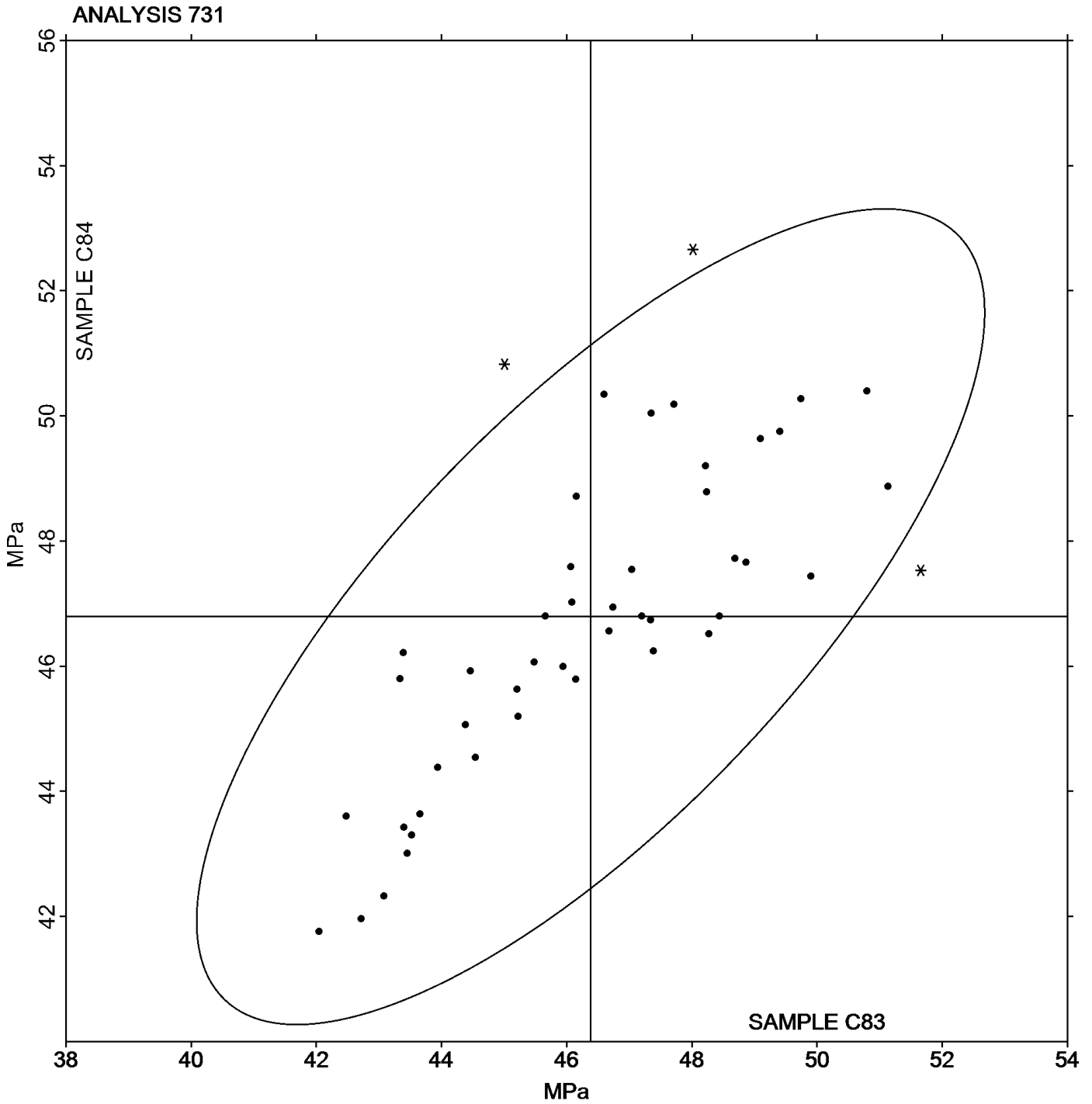
Analysis 731

Tensile Stress at Break - MPa

Report #122

2nd Qtr 2022

Grand Mean Sample C83: 46.381 MPa Grand Mean Sample C84: 46.791 MPa





Plastics Interlaboratory Testing Program

Report #122

Analysis 732

2nd Qtr 2022

Percent Strain at Yield

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		4.520	0.034	0.18	4.508	0.013	0.06
426DMZ		4.444	-0.042	-0.21	4.440	-0.055	-0.28
4JMH88		4.640	0.154	0.80	4.540	0.045	0.23
4ZQCD7		4.446	-0.040	-0.20	4.494	-0.001	-0.01
7MCKV7		4.428	-0.058	-0.30	4.454	-0.041	-0.21
83J9MW	X	1.850	-2.636	-13.61	1.818	-2.677	-13.56
94W7LY		4.376	-0.110	-0.57	4.378	-0.117	-0.59
A7DUEB		4.772	0.287	1.48	4.732	0.236	1.20
AC2G8V		4.492	0.006	0.03	4.534	0.039	0.20
AVUH2D		4.316	-0.170	-0.88	4.368	-0.127	-0.65
BE7REJ		4.458	-0.028	-0.14	4.416	-0.079	-0.40
BPQRD2		4.420	-0.066	-0.34	4.474	-0.021	-0.11
CGLGEL		4.320	-0.166	-0.85	4.400	-0.095	-0.48
D6VZ9L		4.488	0.002	0.01	4.486	-0.009	-0.05
ENHVED		4.530	0.044	0.23	4.616	0.121	0.61
F7UYDB		4.620	0.134	0.69	4.790	0.295	1.49
FGXAML		4.398	-0.088	-0.45	4.323	-0.172	-0.87
G9JTQ6		4.446	-0.040	-0.20	4.414	-0.081	-0.41
H2DG8D		4.604	0.118	0.61	4.614	0.119	0.60
H34QVK		4.280	-0.206	-1.06	4.260	-0.235	-1.19
H68GZE	*	3.991	-0.495	-2.55	3.977	-0.519	-2.63
HGKJKR		4.500	0.014	0.07	4.600	0.105	0.53
JLWV7K		4.270	-0.216	-1.11	4.280	-0.215	-1.09
JWG92A		4.524	0.039	0.20	4.557	0.061	0.31
MBKVUM	X	4.860	0.374	1.93	5.400	0.905	4.58
QRWUD2		4.250	-0.236	-1.22	4.250	-0.245	-1.24
R9JGBD	*	5.040	0.554	2.86	5.020	0.525	2.66
RAFXG9		4.517	0.031	0.16	4.657	0.162	0.82
RF2XQU		4.518	0.032	0.17	4.590	0.095	0.48
THL36H		4.286	-0.200	-1.03	4.302	-0.193	-0.98
UAPUVC		4.454	-0.032	-0.16	4.430	-0.065	-0.33
V37QJ3		4.366	-0.120	-0.62	4.402	-0.093	-0.47
VBZNG4		4.558	0.072	0.37	4.552	0.057	0.29
VD4QZD		4.407	-0.078	-0.40	4.422	-0.074	-0.37
VG6MQ9	*	4.512	0.026	0.14	4.286	-0.209	-1.06



Plastics Interlaboratory Testing Program

Report #122

Analysis 732

2nd Qtr 2022

Percent Strain at Yield

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
VUE7MH		4.700	0.214	1.11	4.740	0.245	1.24
VVLMG8		4.522	0.036	0.19	4.490	-0.005	-0.03
WE9MW2		4.400	-0.086	-0.44	4.380	-0.115	-0.58
WM79AV	*	4.848	0.362	1.87	4.650	0.155	0.78
XL8K7Q	*	4.994	0.508	2.62	5.072	0.577	2.92
XWP2YW		4.418	-0.068	-0.35	4.550	0.055	0.28
YND6R6		4.540	0.054	0.28	4.516	0.021	0.10
ZB3AW7		4.686	0.200	1.03	4.662	0.167	0.84
ZJQ8EY		4.220	-0.266	-1.37	4.280	-0.215	-1.09
ZNQ9TA		4.360	-0.126	-0.65	4.400	-0.095	-0.48

Summary Statistics		
	Sample C83	Sample C84
Grand Means	4.4856 Percent	4.4955 Percent
Std Dev Btwn Labs	0.1937 Percent	0.1974 Percent
Statistics based on 43 of 45 reporting participants		

Sample C83: ABS/PC & Sample C84: ABS/PC

Comments on Assigned Data Flags for Test #732

83J9MW (X) - Data for both samples are low.

MBKVUM (X) - Data for sample C84 are high. Inconsistent within the determinations of sample C83.

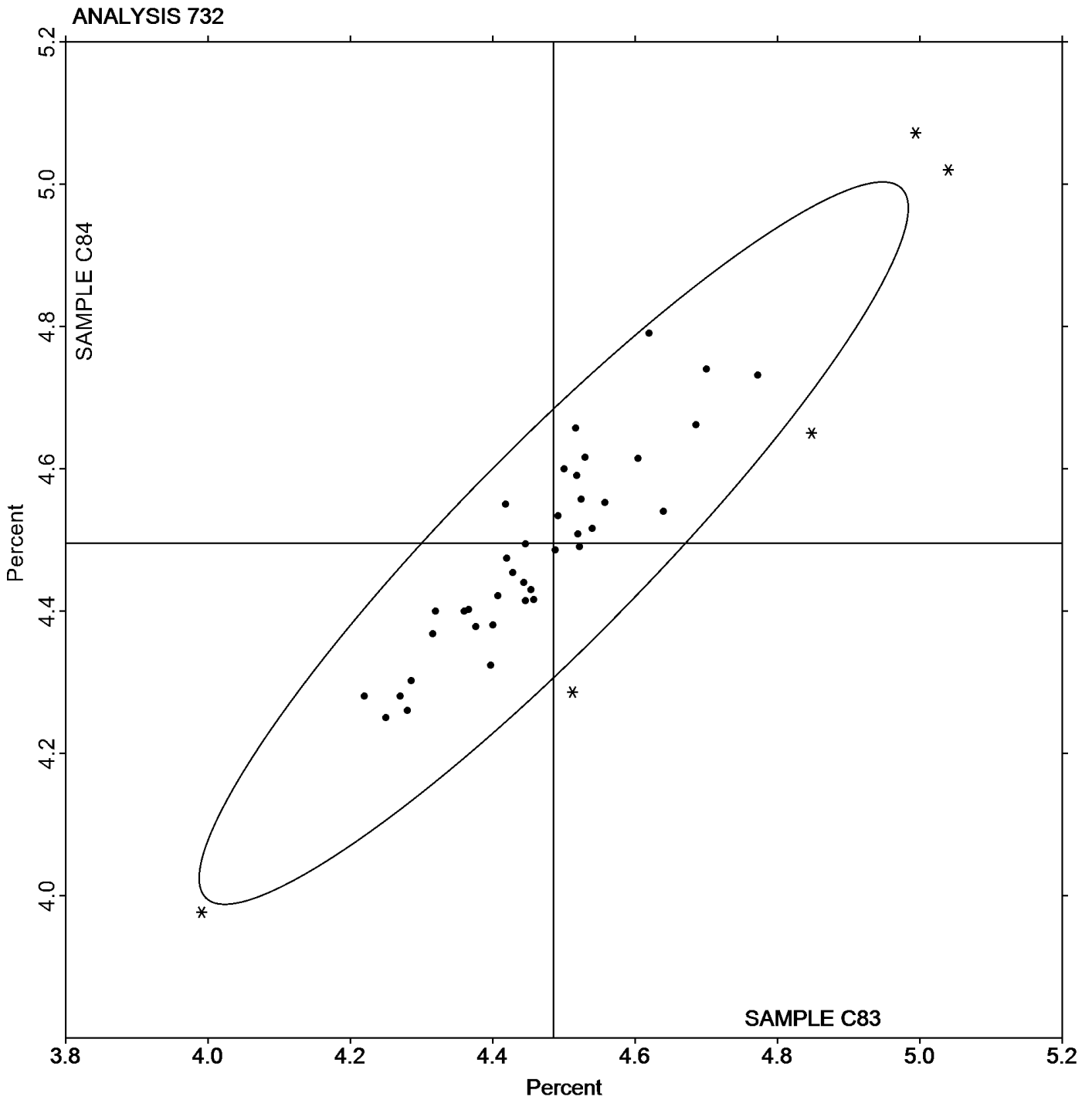


Plastics Interlaboratory Testing Program

Analysis 732 Percent Strain at Yield

Report #122
2nd Qtr 2022

Grand Mean Sample C83: 4.4856 Percent Grand Mean Sample C84: 4.4955 Percent





Plastics Interlaboratory Testing Program

Report #122

Analysis 734

2nd Qtr 2022

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		2,274	48	0.59	2,270	51	0.65
3PULJZ		2,198	-28	-0.35	2,211	-7	-0.09
426DMZ		2,175	-51	-0.62	2,200	-18	-0.22
4JMH88		2,148	-78	-0.96	2,142	-76	-0.96
4ZQCD7		2,304	78	0.96	2,300	82	1.03
7MCVK7		2,209	-16	-0.20	2,260	42	0.52
83J9MW		2,315	89	1.09	2,373	155	1.94
94W7LY		2,291	66	0.80	2,328	110	1.38
A7DUEB		2,185	-40	-0.50	2,126	-92	-1.16
AC2G8V		2,225	0	-0.01	2,207	-11	-0.14
AVUH2D		2,323	98	1.20	2,281	63	0.79
BE7REJ		2,168	-58	-0.71	2,151	-68	-0.85
BPQRD2		2,267	41	0.51	2,225	7	0.09
CGLGEL		2,224	-2	-0.02	2,214	-4	-0.05
D6VZ9L		2,177	-49	-0.60	2,225	6	0.08
ENHVED		2,282	56	0.69	2,286	68	0.85
F7UYDB		2,190	-36	-0.44	2,200	-18	-0.23
FGXAML	X	2,437	211	2.59	2,826	608	7.64
G9JTQ6		2,307	81	0.99	2,322	104	1.31
H2DG8D		2,191	-35	-0.43	2,177	-41	-0.52
H34QVK	*	2,290	64	0.79	2,144	-74	-0.93
H68GZE	X	2,253	27	0.33	2,475	257	3.23
HGKJKR		2,356	130	1.59	2,349	131	1.65
JLWV7K		2,142	-84	-1.03	2,134	-84	-1.05
JWG92A		2,116	-110	-1.35	2,111	-107	-1.35
MBKVUM		2,112	-114	-1.40	2,156	-62	-0.78
QRWUD2		2,242	17	0.20	2,256	38	0.48
R9JGBD		2,228	2	0.02	2,239	20	0.26
RAFXG9		2,214	-12	-0.15	2,164	-54	-0.68
RF2XQU		2,283	57	0.70	2,292	74	0.93
THL36H		2,236	11	0.13	2,203	-15	-0.19
UAPUVC		2,270	44	0.54	2,260	42	0.53
V37QJ3		2,290	64	0.78	2,265	47	0.58
VBZNG4		2,033	-192	-2.36	2,092	-127	-1.59
VD4QZD		2,293	68	0.83	2,270	52	0.65



Plastics Interlaboratory Testing Program

Report #122

Analysis 734

2nd Qtr 2022

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C83			Sample C84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
VG6MQ9		2,386	161	1.97	2,279	61	0.76
VUE7MH		2,206	-20	-0.25	2,139	-79	-1.00
VVLMG8	*	2,008	-218	-2.68	2,010	-209	-2.62
W4VEGN		2,193	-33	-0.40	2,244	25	0.32
WE9MW2		2,324	98	1.20	2,323	105	1.32
WM79AV		2,176	-50	-0.61	2,216	-2	-0.03
XL8K7Q	*	2,192	-34	-0.42	2,048	-170	-2.14
XWP2YW		2,100	-126	-1.55	2,186	-33	-0.41
YND6R6		2,248	22	0.27	2,247	29	0.37
ZB3AW7		2,214	-12	-0.15	2,196	-22	-0.28
ZJQ8EY		2,370	144	1.77	2,332	114	1.43
ZNQ9TA		2,188	-38	-0.47	2,165	-53	-0.67

Summary Statistics		
	Sample C83	Sample C84
Grand Means	2,225.8 MPa	2,218.2 MPa
Stnd Dev Btwn Labs	81.5 MPa	79.5 MPa
Statistics based on 45 of 47 reporting participants		

Sample C83: ABS/PC & Sample C84: ABS/PC

Comments on Assigned Data Flags for Test #734

FGXAML (X) - Data for sample C84 are high. Inconsistent within the determinations of both samples. Inconsistent in testing between samples.

H68GZE (X) - Data for sample C84 are high. Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

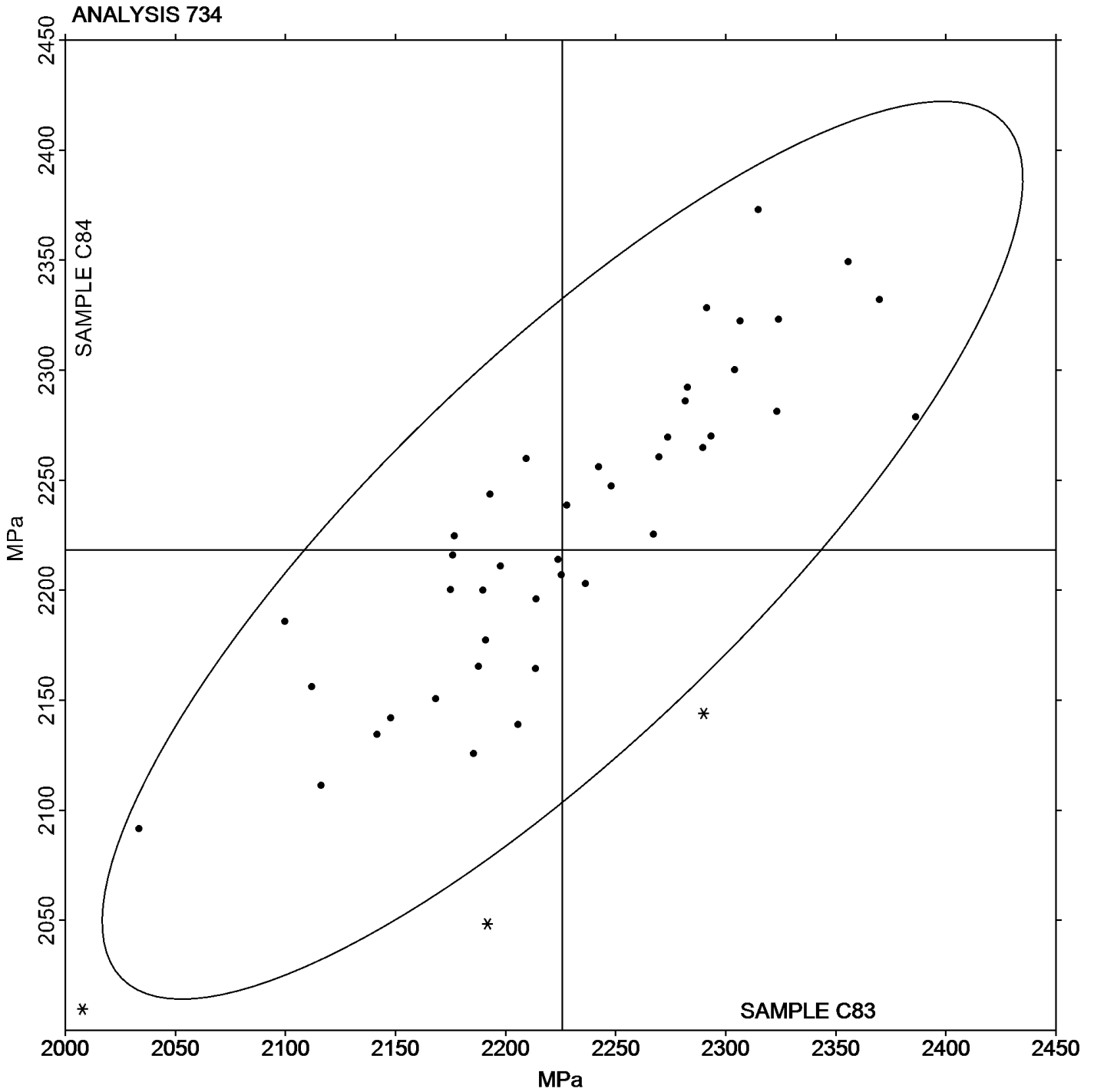
Analysis 734

Modulus of Elasticity - MPa

Report #122

2nd Qtr 2022

Grand Mean Sample C83: 2,225.84 MPa Grand Mean Sample C84: 2,218.17 MPa





Plastics Interlaboratory Testing Program

Report #122

Analysis 736

2nd Qtr 2022

Flexural Modulus - MPa

WebCode	Data Flag	Sample K83			Sample K84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		2,201	-92	-1.03	2,223	-73	-0.76
426DMZ		2,182	-111	-1.24	2,187	-109	-1.14
4JMH88		2,270	-23	-0.25	2,248	-48	-0.50
4ZQCD7		2,178	-115	-1.28	2,179	-117	-1.22
7MCKV7		2,152	-141	-1.57	2,136	-160	-1.67
83J9MW		2,444	151	1.68	2,472	176	1.84
94W7LY		2,260	-33	-0.37	2,318	22	0.23
9U4XUG		2,240	-53	-0.59	2,228	-68	-0.71
A7DUEB		2,307	14	0.15	2,331	35	0.37
AC2G8V		2,137	-156	-1.74	2,136	-160	-1.67
BPQRD2		2,288	-5	-0.06	2,289	-7	-0.07
CGLGEL		2,353	60	0.67	2,361	65	0.68
F7UYDB		2,385	92	1.03	2,417	121	1.26
FGXAML	X	2,687	394	4.39	2,657	361	3.77
G9JTQ6		2,299	6	0.06	2,314	18	0.18
H2DG8D		2,384	91	1.01	2,402	106	1.11
H34QVK		2,460	167	1.86	2,490	194	2.03
H68GZE		2,201	-92	-1.03	2,228	-68	-0.71
HGKJKR		2,458	165	1.84	2,469	173	1.80
JWG92A		2,235	-58	-0.65	2,243	-53	-0.55
QRWUD2		2,249	-44	-0.49	2,256	-40	-0.42
QWRLJD		2,253	-40	-0.45	2,244	-52	-0.55
R9JGBD		2,285	-8	-0.09	2,260	-36	-0.37
RAFXG9		2,325	32	0.36	2,315	19	0.20
RF2XQU		2,263	-31	-0.34	2,254	-42	-0.44
TGU7HA		2,222	-71	-0.79	2,208	-88	-0.92
THL36H		2,455	162	1.80	2,435	139	1.46
UAPUVC		2,364	71	0.79	2,367	71	0.74
V37QJ3		2,390	97	1.08	2,392	96	1.00
VBZNG4		2,227	-66	-0.74	2,227	-69	-0.72
VD4QZD		2,208	-85	-0.95	2,232	-64	-0.67
VG6MQ9		2,204	-89	-0.99	2,164	-132	-1.37
VUE7MH		2,265	-28	-0.31	2,211	-85	-0.88
VVLMG8		2,344	51	0.57	2,334	38	0.40
W4VEGN	X	78	-2,215	-24.69	78	-2,218	-23.13



Plastics Interlaboratory Testing Program

Report #122

Analysis 736

2nd Qtr 2022

Flexural Modulus - MPa

WebCode	Data Flag	Sample K83			Sample K84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
WM79AV		2,278	-15	-0.17	2,318	22	0.23
XWP2YW		2,281	-12	-0.14	2,294	-2	-0.02
YND6R6	*	2,396	103	1.14	2,338	42	0.44
ZJQ8EY		2,402	109	1.21	2,428	132	1.38

Summary Statistics		Sample K83	Sample K84
Grand Means		2,293.1 MPa	2,295.9 MPa
Stnd Dev Btwn Labs		89.7 MPa	95.9 MPa
Statistics based on 37 of 39 reporting participants			

Sample K83: ABS/PC & Sample K84: ABS/PC

Comments on Assigned Data Flags for Test #736

W4VEGN (X) - Extreme data.

FGXAML (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample K84.



Plastics Interlaboratory Testing Program

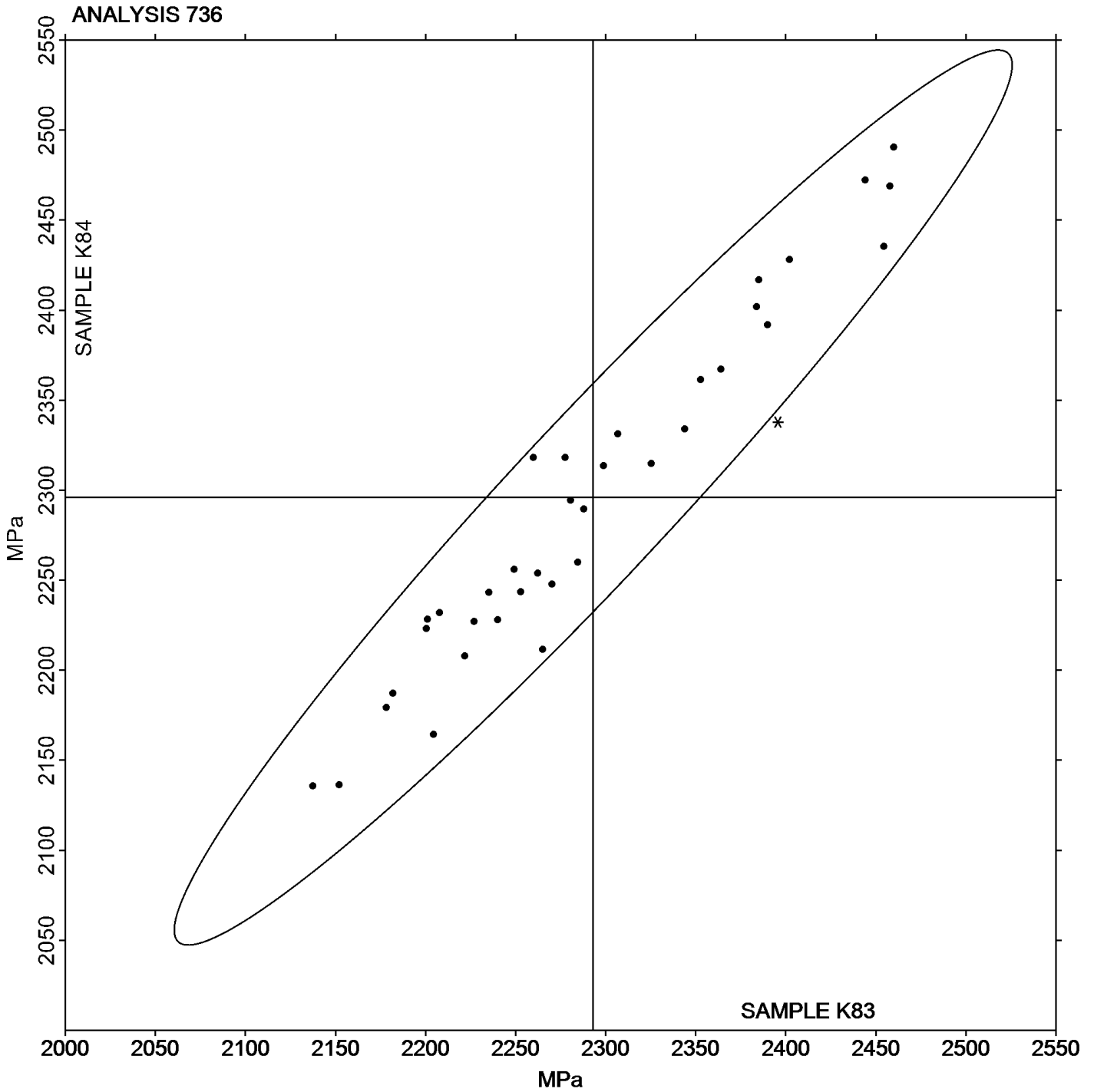
Analysis 736

Flexural Modulus - MPa

Report #122

2nd Qtr 2022

Grand Mean Sample K83: 2,293.07 MPa Grand Mean Sample K84: 2,295.91 MPa





Plastics Interlaboratory Testing Program

Report #122

Analysis 737

2nd Qtr 2022

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K83			Sample K84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		69.46	-0.52	-0.19	68.65	-1.34	-0.47
4JMH88		69.64	-0.34	-0.12	69.03	-0.95	-0.34
4ZQCD7		68.03	-1.94	-0.71	68.00	-1.99	-0.70
7MCVK7		68.23	-1.74	-0.64	67.50	-2.48	-0.88
83J9MW		70.77	0.79	0.29	69.98	-0.01	0.00
A7DUEB		67.62	-2.35	-0.86	68.27	-1.71	-0.61
AC2G8V		65.23	-4.75	-1.73	66.01	-3.97	-1.41
BPQRD2		69.79	-0.19	-0.07	69.55	-0.43	-0.15
CGLGEL		67.36	-2.61	-0.95	67.79	-2.20	-0.78
F7UYDB		68.98	-0.99	-0.36	69.20	-0.78	-0.28
FGXAML	*	75.79	5.81	2.12	76.66	6.68	2.37
G9JTQ6		69.46	-0.51	-0.19	69.51	-0.47	-0.17
H2DG8D		71.13	1.15	0.42	71.26	1.28	0.45
H34QVK		72.42	2.45	0.89	73.45	3.47	1.23
H68GZE		70.24	0.26	0.10	70.61	0.63	0.22
HGKJKR		72.50	2.53	0.92	72.56	2.58	0.91
JWG92A		69.13	-0.84	-0.31	68.83	-1.16	-0.41
QRWUD2		68.13	-1.85	-0.67	68.09	-1.89	-0.67
QWRLJD		69.20	-0.77	-0.28	68.90	-1.08	-0.38
R9JGBD		69.41	-0.57	-0.21	69.42	-0.56	-0.20
RAFXG9		67.97	-2.00	-0.73	67.99	-1.99	-0.71
THL36H		73.49	3.51	1.28	72.88	2.90	1.03
UAPUVC		68.40	-1.57	-0.57	68.12	-1.86	-0.66
V37QJ3		69.88	-0.09	-0.03	70.14	0.15	0.05
VBZNG4		68.28	-1.70	-0.62	68.70	-1.28	-0.45
VD4QZD	*	77.84	7.87	2.87	77.78	7.80	2.76
VG6MQ9		67.60	-2.37	-0.87	67.38	-2.61	-0.92
VUE7MH		69.50	-0.47	-0.17	69.33	-0.65	-0.23
VVLMG8		68.40	-1.57	-0.57	67.87	-2.11	-0.75
WM79AV		68.64	-1.33	-0.49	69.38	-0.60	-0.21
XWP2YW		70.13	0.15	0.06	69.73	-0.25	-0.09
YND6R6	X	73.40	3.43	1.25	70.72	0.74	0.26
ZJQ8EY		76.54	6.57	2.39	76.89	6.90	2.44



Plastics Interlaboratory Testing Program

Report #122

Analysis 737

2nd Qtr 2022

Flexural Stress at 3.5% Strain - MPa

Summary Statistics	<u>Sample K83</u>	<u>Sample K84</u>
Grand Means	69.974 MPa	69.983 MPa
Stnd Dev Btwn Labs	2.744 MPa	2.824 MPa
Statistics based on 32 of 33 reporting participants		

Sample K83: ABS/PC & Sample K84: ABS/PC

Comments on Assigned Data Flags for Test #737

YND6R6 (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

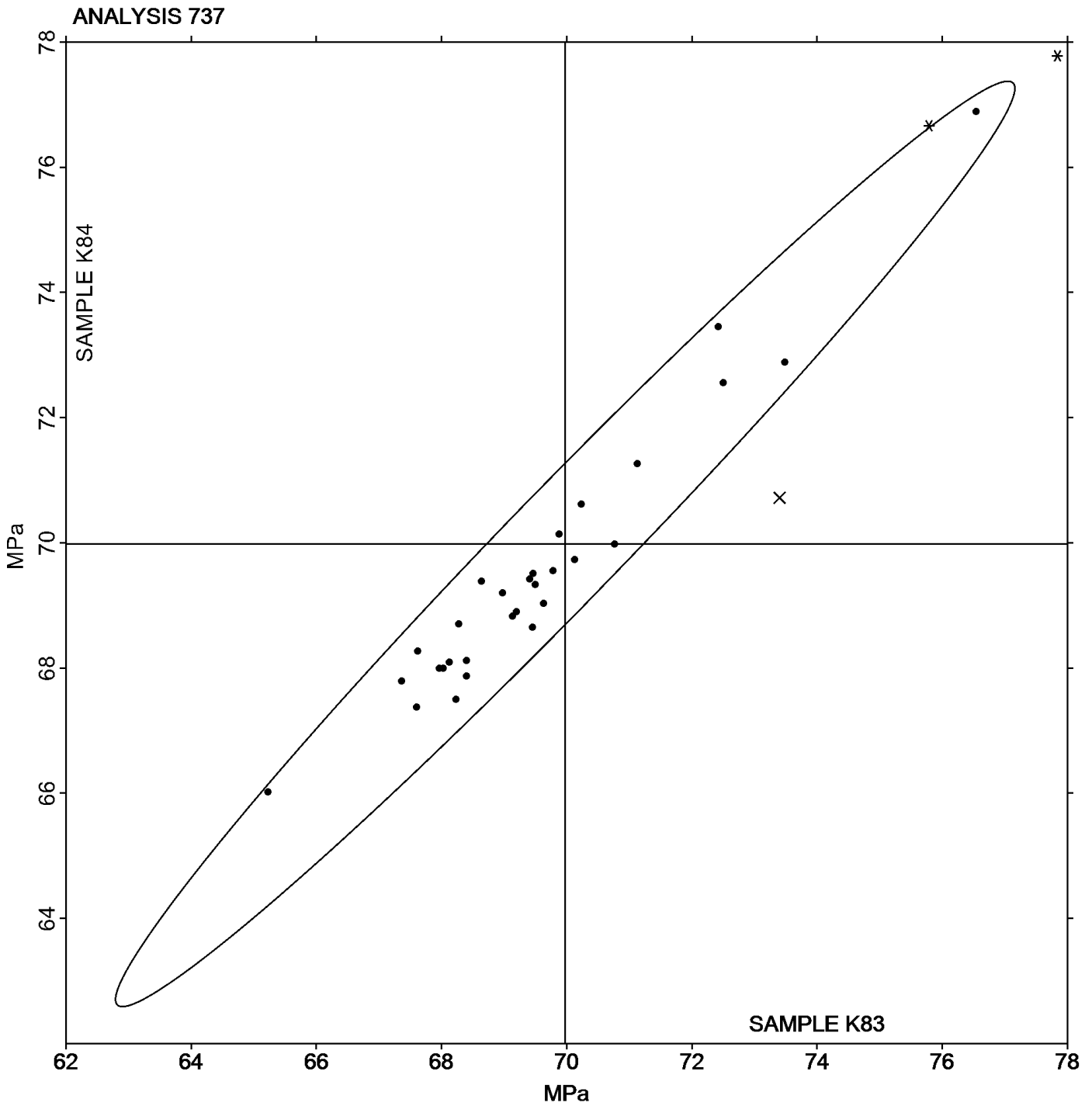
Analysis 737

Flexural Stress at 3.5% Strain - MPa

Report #122

2nd Qtr 2022

Grand Mean Sample K83: 69.974 MPa Grand Mean Sample K84: 69.983 MPa





Plastics Interlaboratory Testing Program

Report #122

Analysis 738

2nd Qtr 2022

Flexural Stress at Yield - MPa

WebCode	Data Flag	Sample K83			Sample K84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		81.71	1.67	0.76	81.35	1.34	0.57
4JMH88		81.34	1.30	0.59	80.79	0.78	0.33
4ZQCD7		82.24	2.20	1.00	82.17	2.16	0.92
7MCVK7		78.79	-1.26	-0.57	78.03	-1.99	-0.84
83J9MW	*	79.66	-0.38	-0.17	77.78	-2.23	-0.95
94W7LY		79.42	-0.62	-0.28	80.66	0.65	0.27
BPQRD2		79.07	-0.97	-0.44	78.79	-1.22	-0.52
CGLGEL		76.33	-3.71	-1.69	75.85	-4.16	-1.77
F7UYDB		77.32	-2.72	-1.24	77.42	-2.59	-1.10
FGXAML		85.37	5.33	2.43	86.08	6.07	2.58
G9JTQ6		79.02	-1.02	-0.46	79.24	-0.77	-0.33
H2DG8D		80.37	0.32	0.15	80.75	0.73	0.31
H68GZE		79.33	-0.71	-0.32	80.09	0.07	0.03
HGKJKR		81.12	1.08	0.49	81.12	1.11	0.47
JWG92A		79.37	-0.67	-0.30	79.63	-0.38	-0.16
QWRLJD		79.46	-0.58	-0.26	79.36	-0.65	-0.28
RAFXG9		79.17	-0.87	-0.40	78.83	-1.19	-0.51
RF2XQU		78.54	-1.50	-0.68	78.41	-1.61	-0.68
THL36H		83.40	3.36	1.53	83.14	3.13	1.33
UAPUVC		80.42	0.38	0.17	80.30	0.29	0.12
VBZNG4		78.33	-1.72	-0.78	79.20	-0.82	-0.35
VG6MQ9		77.12	-2.92	-1.33	77.24	-2.78	-1.18
VUE7MH		79.07	-0.97	-0.44	79.67	-0.35	-0.15
VVLMG8		78.35	-1.69	-0.77	77.93	-2.08	-0.89
WM79AV		80.51	0.47	0.21	80.53	0.51	0.22
XWP2YW		80.84	0.80	0.36	80.11	0.10	0.04
ZJQ8EY		85.42	5.38	2.45	85.94	5.92	2.52

Summary Statistics

	Sample K83	Sample K84
Grand Means	80.041 MPa	80.015 MPa
Std Dev Btwn Labs	2.194 MPa	2.351 MPa

Statistics based on 27 of 27 reporting participants

Sample K83: ABS/PC & Sample K84: ABS/PC



Plastics Interlaboratory Testing Program

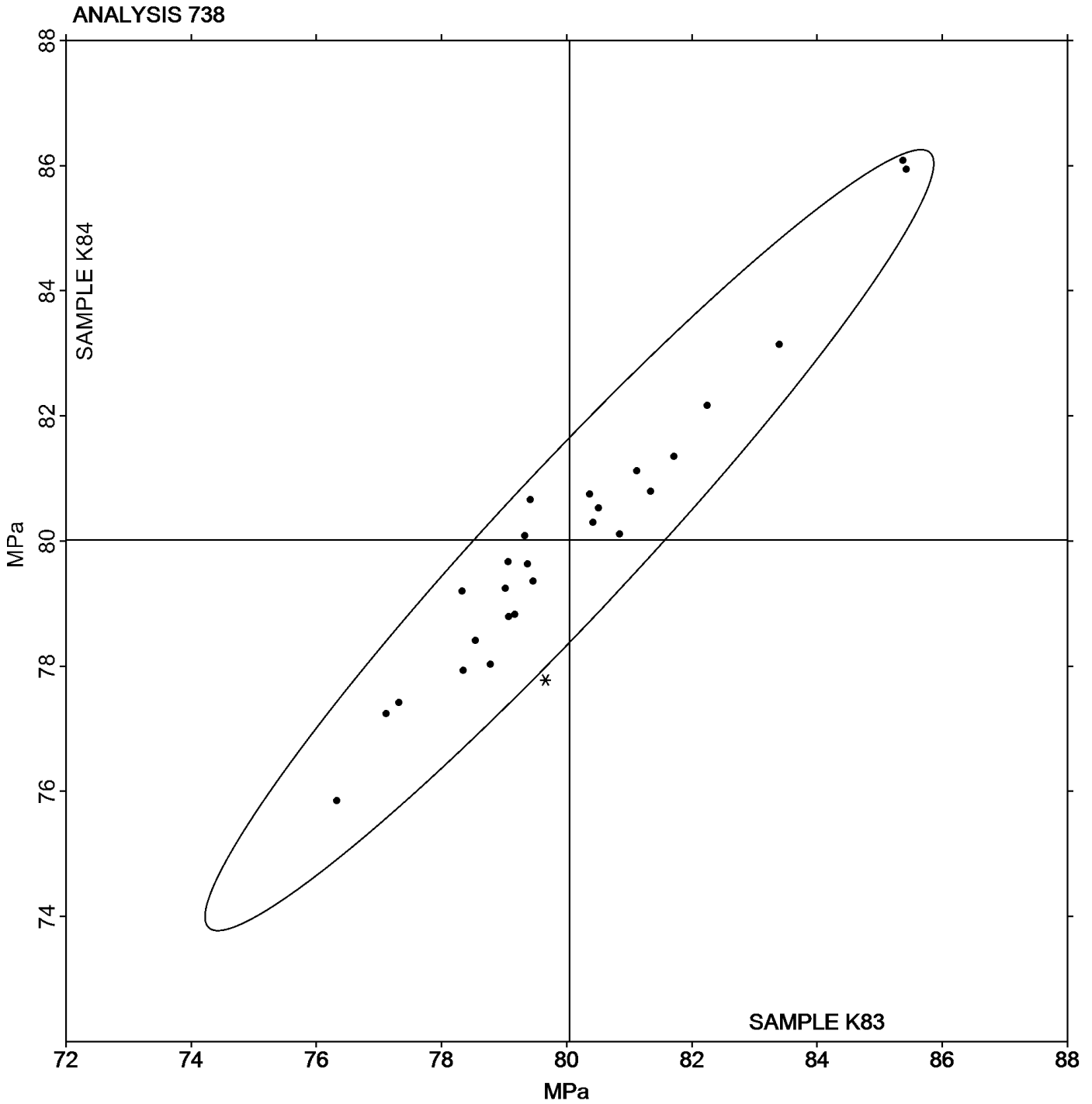
Analysis 738

Flexural Stress at Yield - MPa

Report #122

2nd Qtr 2022

Grand Mean Sample K83: 80.041 MPa Grand Mean Sample K84: 80.015 MPa





Plastics Interlaboratory Testing Program

Report #122

Analysis 750

2nd Qtr 2022

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

WebCode	Data Flag	Sample X83			Sample X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RUUR		12.81	-0.51	-0.74	12.67	-0.79	-1.14	GO
2JPM9B	X	13.09	-0.23	-0.33	15.10	1.64	2.38	TO
426DMZ		13.05	-0.27	-0.39	13.15	-0.31	-0.45	TO
4B9T9Y		14.33	1.01	1.46	14.11	0.65	0.94	QT
4GY4HW		13.46	0.13	0.19	13.31	-0.15	-0.22	WZ
4JMH88		13.79	0.47	0.68	13.83	0.37	0.53	TO
4ZQCD7		12.65	-0.67	-0.97	12.60	-0.86	-1.24	WZ
6VCZWW		13.55	0.23	0.33	13.14	-0.32	-0.46	TO
73NGYQ		13.45	0.13	0.19	14.55	1.09	1.58	TO
7BHJ8T		13.98	0.66	0.95	13.93	0.47	0.68	DY
7MCVK7		14.05	0.73	1.05	14.45	0.99	1.44	TO
7MY97Y		13.19	-0.14	-0.20	13.24	-0.22	-0.31	TO
7UV44W		12.48	-0.85	-1.22	12.41	-1.05	-1.52	TO
8M8ZD7		12.64	-0.69	-0.99	12.47	-0.99	-1.44	WZ
8WEKTV		13.18	-0.14	-0.20	13.38	-0.08	-0.12	TO
94W7LY		13.66	0.33	0.48	13.68	0.22	0.31	WZ
99RV6R		13.11	-0.21	-0.31	12.97	-0.49	-0.71	TO
9D2D2Y		13.75	0.43	0.62	14.16	0.70	1.02	CE
9HTRGT		13.31	-0.01	-0.02	14.13	0.68	0.98	TM
9NHXKV		13.84	0.52	0.75	13.56	0.10	0.15	CE
9U4XUG		12.38	-0.94	-1.36	13.12	-0.33	-0.48	XX
A2YGAG		13.60	0.28	0.40	14.05	0.59	0.86	TO
AL8J9L		12.30	-1.02	-1.48	12.40	-1.06	-1.53	XX
AM6QXT		14.76	1.44	2.08	15.00	1.54	2.23	TO
BF24JY		13.80	0.48	0.69	13.60	0.14	0.21	XX
BPQRD2	*	13.90	0.58	0.84	15.10	1.64	2.38	TO
BT6NLN		12.40	-0.92	-1.33	13.45	-0.01	-0.01	TO
BTP8LN		13.46	0.13	0.19	12.81	-0.65	-0.95	XX
CGLGEL		13.01	-0.31	-0.45	13.23	-0.23	-0.34	CE
CWGY8Q		12.78	-0.55	-0.79	12.84	-0.62	-0.90	TO
DA2PGT		13.30	-0.02	-0.03	13.00	-0.46	-0.66	TO
DLGMCN		13.63	0.30	0.44	14.28	0.82	1.18	XX
EED24L		12.63	-0.69	-1.00	12.83	-0.63	-0.91	DY
EUNKZR		12.95	-0.37	-0.54	13.85	0.39	0.57	TO
F7UYDB	*	15.01	1.68	2.43	14.12	0.66	0.96	TO



Plastics Interlaboratory Testing Program

Report #122

Analysis 750

2nd Qtr 2022

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

WebCode	Data Flag	Sample X83			Sample X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
FGXAML		12.66	-0.66	-0.96	12.75	-0.71	-1.03	TO
GAQ688		13.46	0.14	0.20	13.33	-0.13	-0.19	CE
H2F23T		13.30	-0.02	-0.03	13.55	0.09	0.13	CE
H34QVK		12.63	-0.69	-1.00	12.62	-0.84	-1.21	XX
H3CGBJ		13.04	-0.28	-0.41	13.02	-0.44	-0.64	TO
H4KR8M		13.60	0.28	0.40	13.55	0.09	0.13	TY
H6CYYD	X	15.83	2.51	3.63	17.10	3.64	5.27	CE
HGKJKR	*	15.00	1.68	2.43	15.55	2.09	3.03	DA
HN8KRH		12.55	-0.77	-1.12	12.60	-0.86	-1.25	TO
J28RWD		14.03	0.70	1.02	14.67	1.21	1.75	DY
JLWV7K	X	1.70	-11.62	-16.80	1.97	-11.49	-16.63	DY
JRZVDF		13.03	-0.29	-0.42	13.58	0.12	0.17	TO
JUP7EU		13.23	-0.09	-0.13	12.93	-0.53	-0.77	CE
JWG92A		12.83	-0.50	-0.72	12.98	-0.48	-0.69	DY
MDA9NQ		14.44	1.12	1.62	14.18	0.72	1.05	TO
NNNPQG	X	7.82	-5.51	-7.96	7.87	-5.59	-8.10	XX
NRNYXD		12.71	-0.62	-0.89	12.69	-0.77	-1.12	TO
PVLQFA		13.38	0.06	0.08	14.00	0.54	0.78	RR
QXRGDG		11.94	-1.38	-2.00	12.55	-0.91	-1.31	TO
R9JGBD		12.44	-0.89	-1.28	12.55	-0.91	-1.31	DY
RF2XQU		12.74	-0.58	-0.84	12.92	-0.54	-0.78	TO
TABNGV		12.35	-0.97	-1.40	12.65	-0.81	-1.17	TO
TGU7HA		14.06	0.74	1.07	14.24	0.78	1.13	XX
TTJ667		12.61	-0.71	-1.03	12.70	-0.76	-1.10	TO
UAPUVC		13.90	0.58	0.84	13.30	-0.16	-0.23	WZ
UAQJ4F		13.65	0.33	0.47	13.90	0.44	0.64	TO
V37QJ3		13.32	0.00	0.00	13.41	-0.05	-0.08	DY
VBZNG4		13.16	-0.16	-0.23	13.36	-0.10	-0.14	DY
VUE7MH	X	14.75	1.43	2.06	12.95	-0.51	-0.74	WZ
VVLMG8	X	5.02	-8.31	-12.00	12.00	-1.46	-2.11	CE
VWH287		13.50	0.18	0.26	13.67	0.21	0.31	TO
VZERAB		13.57	0.25	0.36	13.84	0.38	0.55	TO
W34BV9		12.90	-0.42	-0.61	13.70	0.24	0.35	TO
W8VPDN	*	15.06	1.74	2.51	14.49	1.03	1.49	DY
WM79AV		14.30	0.98	1.41	14.40	0.94	1.36	AT



Plastics Interlaboratory Testing Program

Report #122

Analysis 750

2nd Qtr 2022

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

WebCode	Data Flag	Sample X83			Sample X84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
X8ACPB		12.86	-0.47	-0.67	13.15	-0.31	-0.45	TO
XJ7ET6		12.59	-0.73	-1.06	12.61	-0.85	-1.23	TO
XL8K7Q		12.65	-0.67	-0.97	12.85	-0.61	-0.88	KA
XWP2YW		12.40	-0.92	-1.33	12.70	-0.76	-1.10	KA
XXZ4KV		13.37	0.04	0.06	13.61	0.15	0.21	TO
XZ8GBA		12.30	-1.02	-1.48	13.25	-0.21	-0.30	TO
YDQBDM	*	14.13	0.80	1.16	13.15	-0.31	-0.45	TO
YMYWMB		13.60	0.28	0.40	13.95	0.49	0.71	DY
YND6R6		13.05	-0.27	-0.39	13.15	-0.31	-0.45	TO
YRUQKC		13.76	0.44	0.63	13.94	0.48	0.69	TO
Z3RTHE		13.75	0.43	0.62	13.55	0.09	0.13	TO
ZJQ8EY		13.00	-0.33	-0.47	12.98	-0.48	-0.69	GO
ZNQ9TA		13.69	0.36	0.53	13.70	0.24	0.35	WZ
ZU9YUV		14.45	1.13	1.63	14.15	0.69	1.00	AT

Summary Statistics

	Sample X83	Sample X84
Grand Means	13.322 grams/10 mins	13.458 grams/10 mins
Stnd Dev Btwn Labs	0.692 grams/10 mins	0.691 grams/10 mins

Statistics based on 78 of 84 reporting participants

Sample X83: PP & Sample X84: PP

Comments on Assigned Data Flags for Test #750

- JLWV7K (X) - Extreme data.
- VUE7MH (X) - Inconsistent in testing between samples.
- 2JPM9B (X) - Inconsistent in testing between samples.
- VVLMG8 (X) - Data for sample X83 are low. Inconsistent in testing between samples.
- NNNPQG (X) - Data for both samples are low. Possible Systematic Error.
- H6CYD (X) - Data for both samples are high. Possible Systematic Error.



Plastics Interlaboratory Testing Program

Report #122

Analysis 750

2nd Qtr 2022

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

Results by Methodology (as reported by laboratory)

Test Methodology	Sample X83 <i>PP</i>			Sample X84 <i>PP</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Procedure A of ASTM D1238	13.365	0.744	0.04	13.576	0.692	0.12	45/48
Procedure B of ASTM D1238	13.100	0.532	-0.22	13.171	0.535	-0.29	17/17
Procedure A of ISO 1133	13.387	0.775	0.07	13.493	0.885	0.03	11/13
Procedure B of ISO 1133	13.479	0.580	0.16	13.353	0.605	-0.11	3/4

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

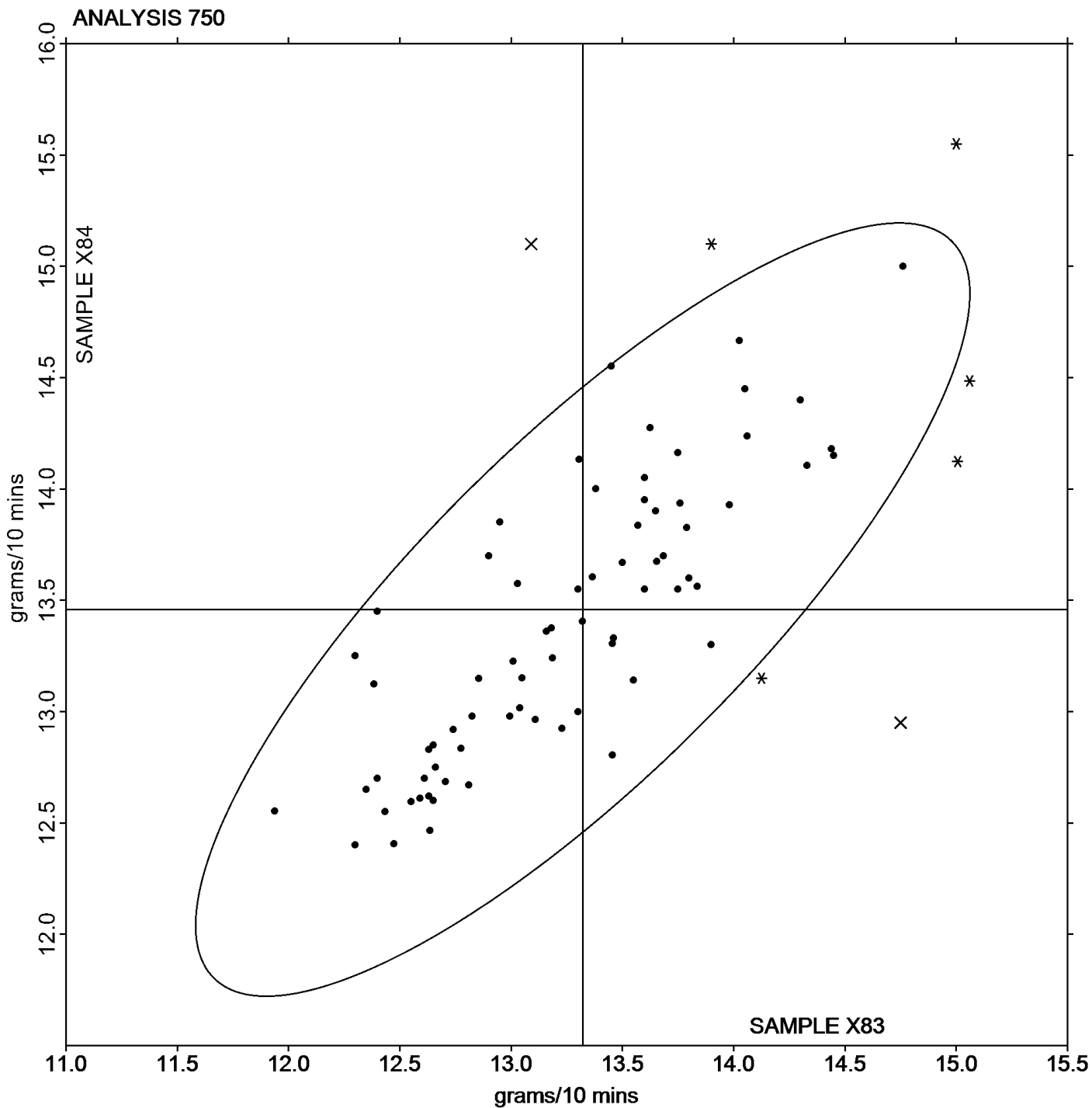
Report #122

Analysis 750

2nd Qtr 2022

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

Grand Mean Sample X83: 13.322 grams/10 mins Grand Mean Sample X84: 13.458 grams/10 mins





Plastics Interlaboratory Testing Program

Report #122

Analysis 755

2nd Qtr 2022

Moisture Content of Plastics

WebCode	Data Flag	Sample Y83			Sample Y84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		0.11400	0.00336	0.17	0.11467	0.00467	0.23	AZ
4GY4HW		0.11950	0.00886	0.44	0.12100	0.01101	0.55	AZ
6ENP89		0.11447	0.00383	0.19	0.11363	0.00364	0.18	AZ
6UXM4T		0.07877	-0.03187	-1.58	0.08307	-0.02693	-1.34	MU
83J9MW		0.12567	0.01503	0.75	0.10733	-0.00266	-0.13	CT
8D4MD6		0.11523	0.00459	0.23	0.11467	0.00467	0.23	ML
94W7LY		0.13020	0.01956	0.97	0.12020	0.01021	0.51	AZ
98R9WT		0.10333	-0.00731	-0.36	0.10667	-0.00332	-0.17	MU
9DFL7T		0.11883	0.00819	0.41	0.11897	0.00898	0.45	CS
9NHXKV		0.12297	0.01233	0.61	0.11637	0.00638	0.32	MK
AL8J9L		0.12147	0.01083	0.54	0.11920	0.00921	0.46	MK
BF24JY	*	0.05833	-0.05231	-2.60	0.07400	-0.03599	-1.79	CT
BJVBAL		0.10300	-0.00764	-0.38	0.09800	-0.01199	-0.60	SB
BMGUZJ		0.12100	0.01036	0.51	0.11900	0.00901	0.45	MJ
BPQRD2		0.10667	-0.00397	-0.20	0.10733	-0.00266	-0.13	MU
CGLGEL		0.08500	-0.02564	-1.27	0.08500	-0.02499	-1.25	XX
DDEPEK		0.09967	-0.01097	-0.54	0.10933	-0.00066	-0.03	AZ
DMD24M		0.12147	0.01083	0.54	0.11787	0.00788	0.39	MR
EED24L		0.12201	0.01137	0.56	0.13303	0.02304	1.15	XX
F7UYDB		0.07067	-0.03997	-1.98	0.07200	-0.03799	-1.89	AZ
K8R26A	X	0.16000	0.04936	2.45	0.19000	0.08001	3.99	XX
NRQJPL		0.11800	0.00736	0.37	0.11800	0.00801	0.40	SB
PVLQFA		0.12377	0.01313	0.65	0.12790	0.01791	0.89	CT
QALTMA		0.12350	0.01286	0.64	0.10900	-0.00099	-0.05	AZ
QWRLJD	X	0.40000	0.28936	14.36	0.18167	0.07168	3.57	MU
QXRGDG		0.10710	-0.00354	-0.18	0.12057	0.01057	0.53	ML
R9JGBD	*	0.13303	0.02239	1.11	0.15593	0.04594	2.29	XX
RAFXG9		0.12133	0.01069	0.53	0.10800	-0.00199	-0.10	MU
TABNGV		0.11233	0.00169	0.08	0.10900	-0.00099	-0.05	BA
UAQJ4F		0.07833	-0.03231	-1.60	0.06333	-0.04666	-2.33	CT
V37QJ3		0.11950	0.00886	0.44	0.11850	0.00851	0.42	XX
VUE7MH		0.12833	0.01769	0.88	0.10900	-0.00099	-0.05	MJ
VVLMG8		0.09267	-0.01797	-0.89	0.08867	-0.02133	-1.06	MU
VZERAB		0.15233	0.04169	2.07	0.14700	0.03701	1.84	XX
W722UT		0.07067	-0.03997	-1.98	0.07200	-0.03799	-1.89	MU



Plastics Interlaboratory Testing Program

Report #122

Analysis 755

2nd Qtr 2022

Moisture Content of Plastics

WebCode	Data Flag	Sample Y83			Sample Y84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XWP2YW		0.10500	-0.00564	-0.28	0.11333	0.00334	0.17	MU
YMYWMB		0.11520	0.00456	0.23	0.11613	0.00614	0.31	AZ
ZNQ9TA		0.12967	0.01903	0.94	0.13200	0.02201	1.10	BA

Summary Statistics

	Sample Y83	Sample Y84
Grand Means	0.110639 Percent	0.109992 Percent
Stnd Dev Btwn Labs	0.020150 Percent	0.020060 Percent

Statistics based on 36 of 38 reporting participants

Sample Y83: ABS/PC & Sample Y84: ABS/PC

Comments on Assigned Data Flags for Test #755

K8R26A (X) - Data for sample Y84 are high. Inconsistent in testing between samples.

QWRLJD (X) - Data for both samples are high. Inconsistent within the determinations of sample Y83.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample Y83 <i>ABS/PC</i>			Sample Y84 <i>ABS/PC</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D6869	0.108500	0.016741	-0.0021	0.108453	0.016022	-0.0015	10/11
ISO 15512 Method B	0.113200	0.019261	0.0026	0.108900	0.015087	-0.0011	5/5
ASTM D6980	0.106285	0.029357	-0.0044	0.102767	0.026161	-0.0072	11/11
ASTM D7191	0.112528	0.006740	0.0019	0.113544	0.003766	0.0036	6/6

Key to Instrument Codes Reported by Participants

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

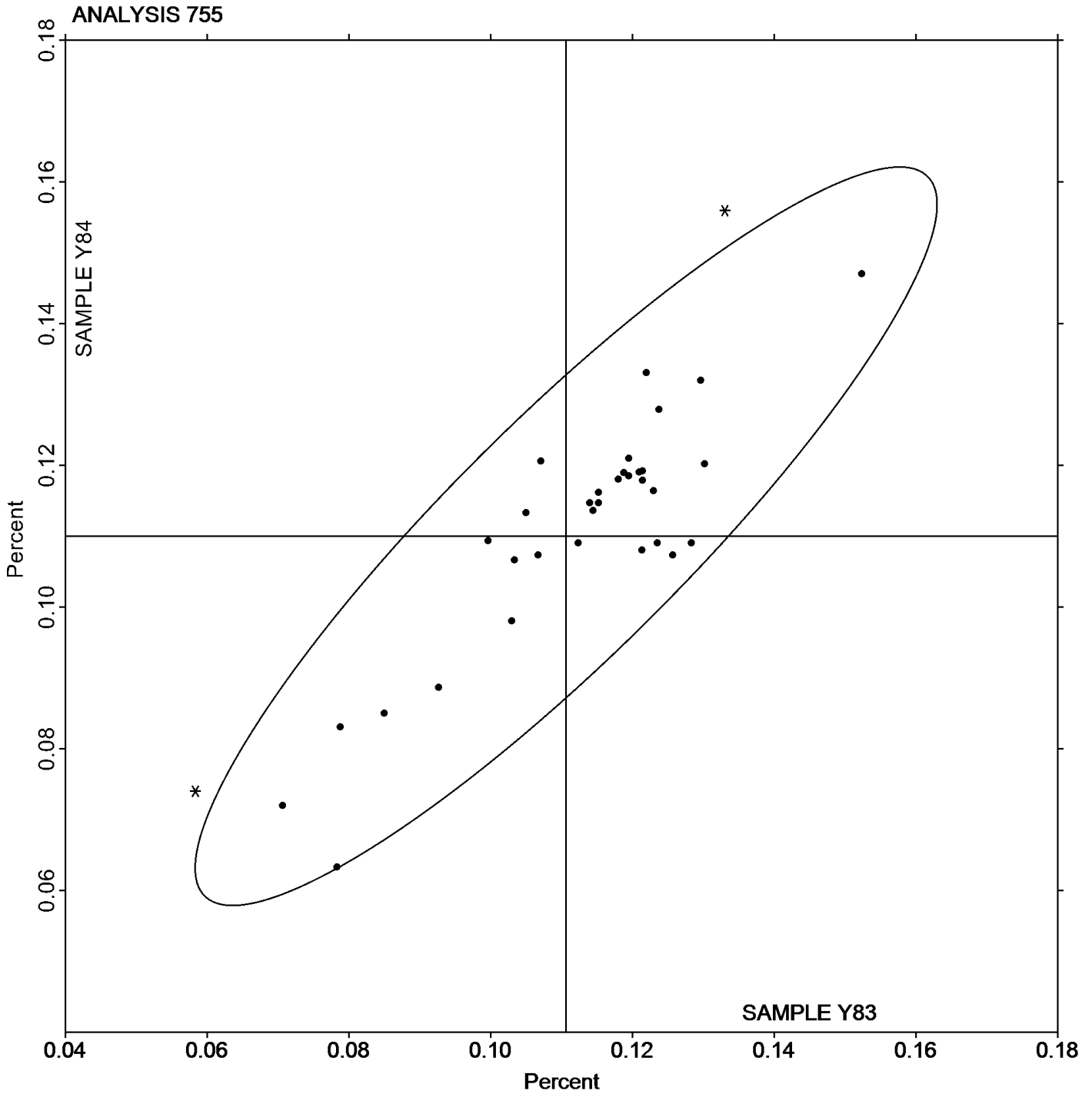
Analysis 755

Moisture Content of Plastics

Report #122

2nd Qtr 2022

Grand Mean Sample Y83: 0.11064 Percent Grand Mean Sample Y84: 0.10999 Percent





Plastics Interlaboratory Testing Program

Report #122

Analysis 757

2nd Qtr 2022

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L83			Sample L84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29RUUR		30.385	-0.217	-0.66	30.160	-0.388	-1.16
3RWTFX		30.405	-0.197	-0.60	30.260	-0.288	-0.86
3TWPA2		30.590	-0.012	-0.04	30.671	0.123	0.37
426DMZ		30.942	0.340	1.04	30.741	0.193	0.58
4HRY67		30.410	-0.192	-0.58	30.515	-0.033	-0.10
4JMH88		30.100	-0.502	-1.53	30.050	-0.498	-1.49
4ZQCD7		30.200	-0.402	-1.23	30.195	-0.353	-1.06
6HL7HG		30.780	0.178	0.54	31.150	0.602	1.81
6UXM4T		30.680	0.078	0.24	30.792	0.244	0.73
83J9MW		30.885	0.283	0.86	30.895	0.347	1.04
94W7LY		30.615	0.013	0.04	30.770	0.222	0.67
98R9WT		30.965	0.363	1.11	30.935	0.387	1.16
9D2D2Y		30.930	0.328	1.00	31.005	0.457	1.37
9NHXKV		30.615	0.013	0.04	30.505	-0.043	-0.13
9U4XUG		29.950	-0.652	-1.99	30.010	-0.538	-1.61
A2YGAG		30.985	0.383	1.17	30.715	0.167	0.50
AC2G8V		30.330	-0.272	-0.83	30.325	-0.223	-0.67
BF24JY		30.385	-0.217	-0.66	30.530	-0.018	-0.05
BPQRD2		30.750	0.148	0.45	30.310	-0.238	-0.71
BT6NLN		30.530	-0.072	-0.22	30.880	0.332	1.00
CGLGEL		30.145	-0.457	-1.39	30.245	-0.303	-0.91
CUEX8T		30.695	0.093	0.28	30.625	0.077	0.23
DDEPEK		30.260	-0.342	-1.04	30.375	-0.173	-0.52
DLGMCN		30.295	-0.307	-0.94	30.120	-0.428	-1.28
DMD24M		30.570	-0.032	-0.10	30.430	-0.118	-0.35
EED24L	X	31.630	1.028	3.14	29.450	-1.098	-3.30
F7UYDB	*	30.950	0.348	1.06	30.135	-0.413	-1.24
FGXAML	*	31.455	0.853	2.60	31.365	0.817	2.45
G6HPYH		30.735	0.133	0.41	30.715	0.167	0.50
H2DG8D		30.895	0.293	0.89	31.000	0.452	1.36
H34QVK		30.070	-0.532	-1.62	30.135	-0.413	-1.24
JLXYDF	X	30.685	0.083	0.25	29.505	-1.043	-3.13
NRQJPL		30.185	-0.417	-1.27	29.975	-0.573	-1.72
QALTMA		30.370	-0.232	-0.71	30.630	0.082	0.25
QXRGDG		30.680	0.078	0.24	30.810	0.262	0.79



Plastics Interlaboratory Testing Program

Report #122

Analysis 757

2nd Qtr 2022

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L83			Sample L84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R9JGBD		30.620	0.018	0.06	30.745	0.197	0.59
RF2XQU		30.320	-0.282	-0.86	30.500	-0.048	-0.14
TGU7HA		30.288	-0.314	-0.96	30.284	-0.264	-0.79
UAQJ4F	X	37.739	7.137	21.76	38.458	7.910	23.75
V37QJ3		30.625	0.023	0.07	30.540	-0.008	-0.02
VA4F6D		30.700	0.098	0.30	30.755	0.207	0.62
VUE7MH		30.585	-0.017	-0.05	30.070	-0.478	-1.43
VVLMG8		31.018	0.416	1.27	31.021	0.473	1.42
VZERAB		30.450	-0.152	-0.46	30.550	0.002	0.01
W4VEGN	*	31.105	0.503	1.53	30.330	-0.218	-0.65
XU3J26		30.690	0.088	0.27	30.425	-0.123	-0.37
XWP2YW		30.705	0.103	0.31	30.575	0.027	0.08
YND6R6		30.445	-0.157	-0.48	30.465	-0.083	-0.25
ZJQ8EY		30.595	-0.007	-0.02	30.420	-0.128	-0.38
ZNQ9TA		31.400	0.798	2.43	31.090	0.542	1.63

Summary Statistics		
	Sample L83	Sample L84
Grand Means	30.6017 Percent	30.5477 Percent
Stnd Dev Btwn Labs	0.3279 Percent	0.3330 Percent
Statistics based on 47 of 50 reporting participants		

Sample L83: PBT & Sample L84: PBT

Comments on Assigned Data Flags for Test #757

- EED24L (X) - Data for sample L83 are high and data for sample L84 are low. Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- UAQJ4F (X) - Extreme data.
- JLXYDF (X) - Data for sample L84 are low. Inconsistent within the determinations of sample L84.



Plastics Interlaboratory Testing Program

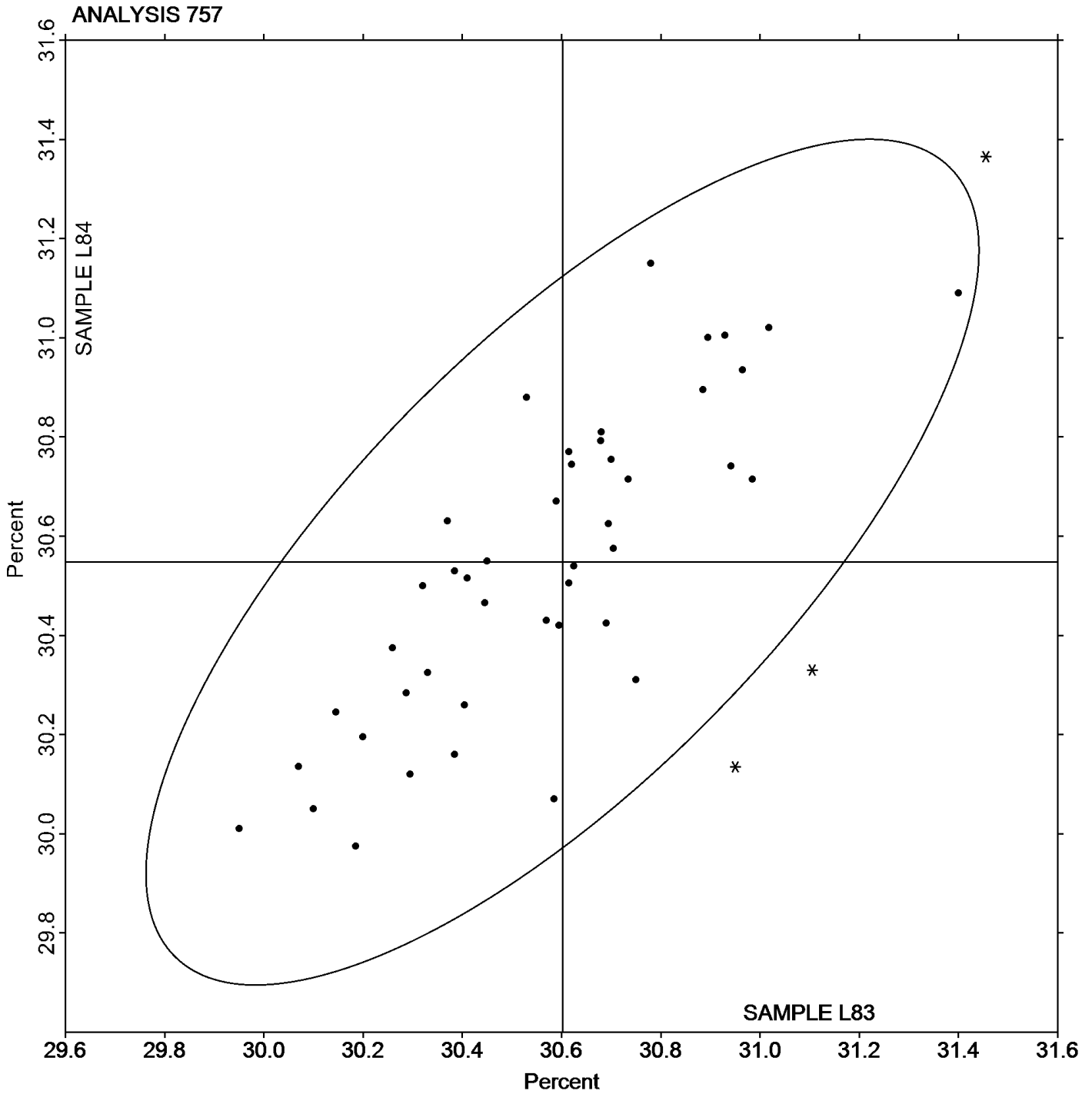
Report #122

Analysis 757

2nd Qtr 2022

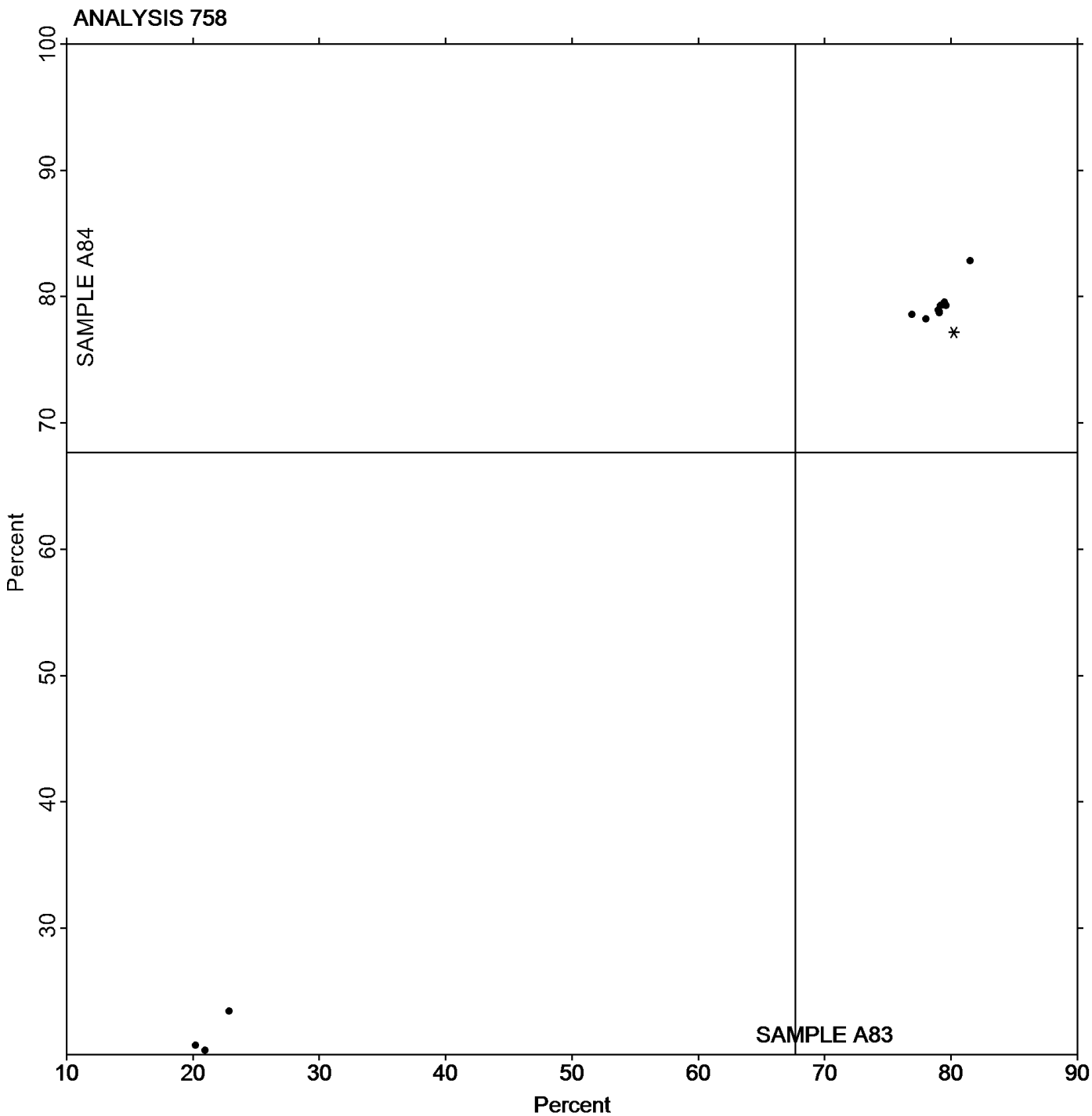
Ash Content in Thermoplastics - Percent

Grand Mean Sample L83: 30.602 Percent Grand Mean Sample L84: 30.548 Percent





Grand Mean Sample A83: 67.656 Percent Grand Mean Sample A84: 67.643 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 #122

Analysis 760

2nd Qtr 2022

DSC Crystallization Temperature

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3PULJZ		171.53	-3.50	-0.60	172.93	-2.30	-0.40	TA
4HRY67		179.07	4.04	0.69	179.00	3.77	0.65	TA
4ZQCD7		174.79	-0.24	-0.04	174.05	-1.18	-0.20	TA
6B3VHV	X	77.38	-97.65	-16.70	78.55	-96.68	-16.67	TA
6UXM4T		179.57	4.54	0.78	179.26	4.03	0.70	TA
94W7LY		172.10	-2.93	-0.50	173.16	-2.07	-0.36	TA
9U4XUG		171.92	-3.11	-0.53	171.45	-3.78	-0.65	TA
AC2G8V		180.50	5.47	0.94	178.33	3.10	0.53	TA
AL8J9L		172.56	-2.47	-0.42	173.34	-1.89	-0.33	TA
CGLGEL		171.00	-4.03	-0.69	170.43	-4.80	-0.83	NZ
DFAYYM		172.60	-2.43	-0.42	172.83	-2.40	-0.41	TA
EUNKZR		180.43	5.40	0.92	182.43	7.20	1.24	TA
G9JTQ6		175.01	-0.02	0.00	174.61	-0.63	-0.11	XX
H4KR8M		188.72	13.69	2.34	187.93	12.69	2.19	SH
HGKJKR		172.43	-2.60	-0.44	171.93	-3.30	-0.57	TA
JLWV7K		187.31	12.28	2.10	188.40	13.16	2.27	TA
JWG92A		173.77	-1.26	-0.22	174.00	-1.23	-0.21	TA
K8R26A		161.73	-13.30	-2.27	163.00	-12.23	-2.11	XX
KEUDZ7		181.33	6.30	1.08	180.90	5.67	0.98	MT
TGU7HA		172.39	-2.64	-0.45	172.57	-2.66	-0.46	TA
UAPUVC		171.64	-3.39	-0.58	171.99	-3.24	-0.56	TA
V37QJ3		171.45	-3.58	-0.61	171.61	-3.62	-0.62	XX
VMC4FV		184.07	9.04	1.55	185.70	10.46	1.80	TA
VVLMG8		173.27	-1.76	-0.30	173.30	-1.93	-0.33	MT
VZERAB		169.67	-5.36	-0.92	170.70	-4.53	-0.78	NZ
XJ8629		171.70	-3.33	-0.57	170.13	-5.10	-0.88	TA
XX2UX6		171.27	-3.76	-0.64	173.97	-1.27	-0.22	PE
XZ8GBA		173.97	-1.06	-0.18	173.30	-1.93	-0.33	TA

Summary Statistics		
	Sample W83	Sample W84
Grand Means	175.030 Degrees Celsius	175.232 Degrees Celsius
Stnd Dev Btwn Labs	5.848 Degrees Celsius	5.799 Degrees Celsius
Statistics based on 27 of 28 reporting participants		

Sample W83: PBT & Sample W84: PBT



Comments on Assigned Data Flags for Test #760

6B3VHV (X) - Extreme data.

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

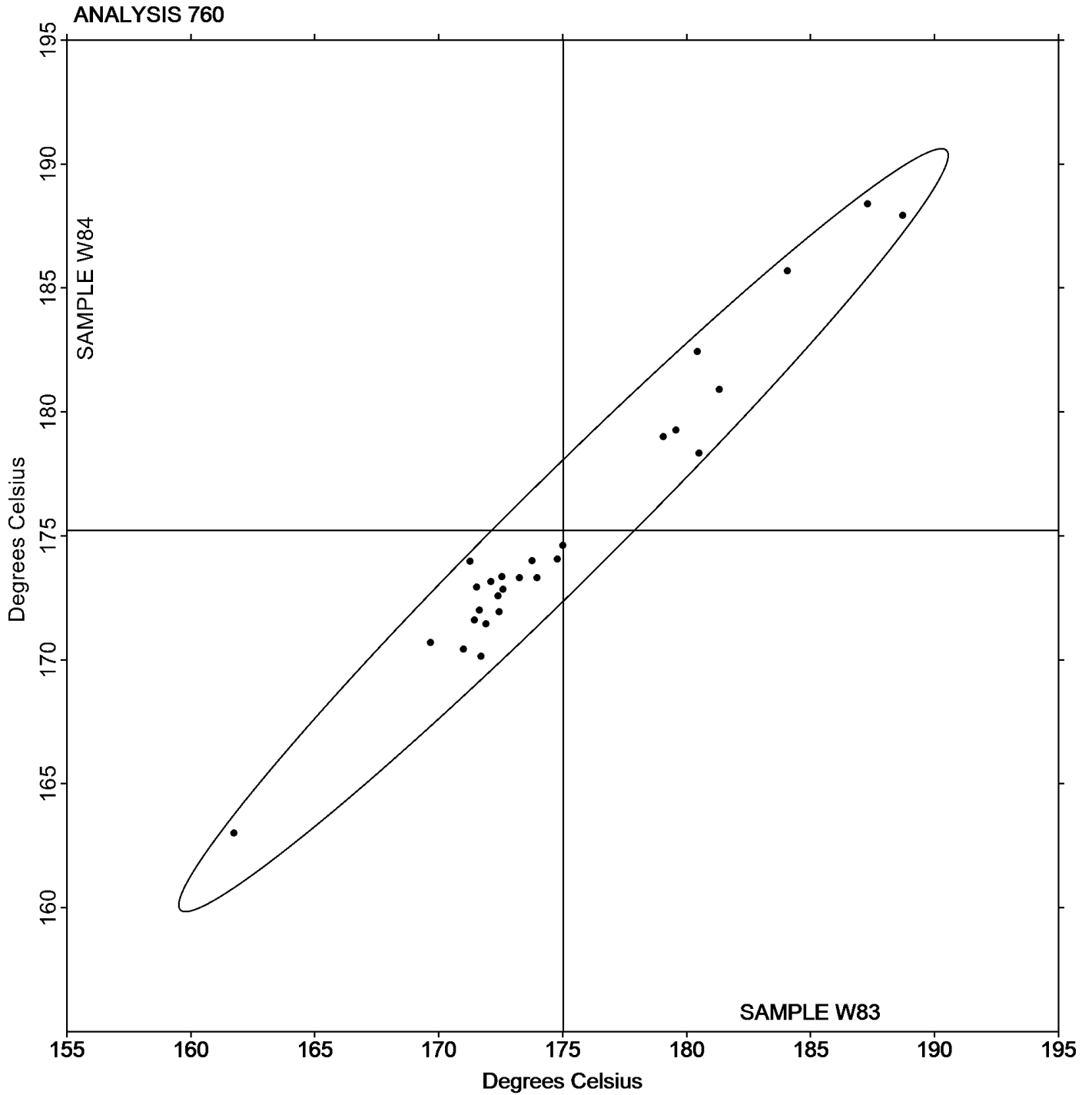
Analysis 760

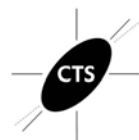
DSC Crystallization Temperature

Report #122

2nd Qtr 2022

Grand Mean Sample W83: 175.03 Degrees Celsius Grand Mean Sample W84: 175.23 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #122

Analysis 761

2nd Qtr 2022

DSC Melt Temperature

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2LC9WR		221.43	-2.48	-2.18	221.63	-2.29	-1.84	NZ
3PULJZ	X	225.87	1.95	1.71	221.80	-2.12	-1.71	TA
3TWPA2		224.04	0.13	0.11	223.74	-0.18	-0.14	TA
4HRY67		223.77	-0.15	-0.13	224.00	0.08	0.06	TA
4ZQCD7		222.97	-0.94	-0.83	223.80	-0.12	-0.10	TA
6B3VHV	X	106.06	-117.86	-103.49	106.29	-117.64	-94.82	TA
6UXM4T		222.57	-1.35	-1.19	222.67	-1.26	-1.01	TA
94W7LY		225.05	1.13	0.99	224.03	0.11	0.09	TA
9U4XUG		224.85	0.94	0.82	224.67	0.74	0.60	XX
AC2G8V		223.53	-0.38	-0.34	223.97	0.04	0.04	TA
AL8J9L		223.59	-0.33	-0.29	223.39	-0.53	-0.43	TA
CGLGEL		224.70	0.78	0.69	225.00	1.08	0.87	NZ
DFAYYM		223.53	-0.38	-0.34	222.70	-1.22	-0.98	TA
EUNKZR		221.77	-2.15	-1.89	221.20	-2.72	-2.19	TA
G9JTQ6		224.12	0.20	0.18	224.40	0.48	0.39	XX
H4KR8M		224.07	0.15	0.13	222.97	-0.95	-0.77	SH
HGKJKR	X	228.80	4.88	4.29	229.17	5.24	4.23	TA
JLWV7K		223.54	-0.38	-0.33	223.72	-0.20	-0.16	TA
JWG92A		223.37	-0.55	-0.48	223.18	-0.74	-0.60	TA
K8R26A		224.93	1.02	0.89	225.37	1.44	1.16	XX
KEUDZ7		223.43	-0.48	-0.42	223.27	-0.66	-0.53	MT
QXRGDG		225.51	1.59	1.40	225.34	1.42	1.15	TA
TABNGV		221.97	-1.95	-1.71	221.97	-1.96	-1.58	TA
TGU7HA		225.08	1.16	1.02	225.18	1.25	1.01	XX
UAPUVC		225.18	1.26	1.11	225.64	1.72	1.38	TA
V37QJ3		225.15	1.23	1.08	224.88	0.96	0.77	XX
VMC4FV		225.89	1.98	1.74	225.49	1.56	1.26	TA
VVLMG8		223.73	-0.18	-0.16	223.43	-0.49	-0.39	MT
VZERAB		224.17	0.25	0.22	224.37	0.44	0.36	NZ
XJ8629		223.55	-0.37	-0.32	224.09	0.17	0.14	TA
XX2UX6		225.10	1.18	1.04	225.90	1.98	1.59	PE
XZ8GBA		222.37	-1.55	-1.36	222.33	-1.59	-1.28	TA
ZL233C		224.54	0.62	0.55	225.33	1.40	1.13	TA



Plastics Interlaboratory Testing Program

Report #122

Analysis 761

2nd Qtr 2022

DSC Melt Temperature

Summary Statistics

	<u>Sample W83</u>	<u>Sample W84</u>
Grand Means	223.916 Degrees Celsius	223.922 Degrees Celsius
Stnd Dev Btwn Labs	1.139 Degrees Celsius	1.241 Degrees Celsius

Statistics based on 30 of 33 reporting participants

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #761

3PULJZ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample W83.

6B3VHV (X) - Extreme data.

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

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

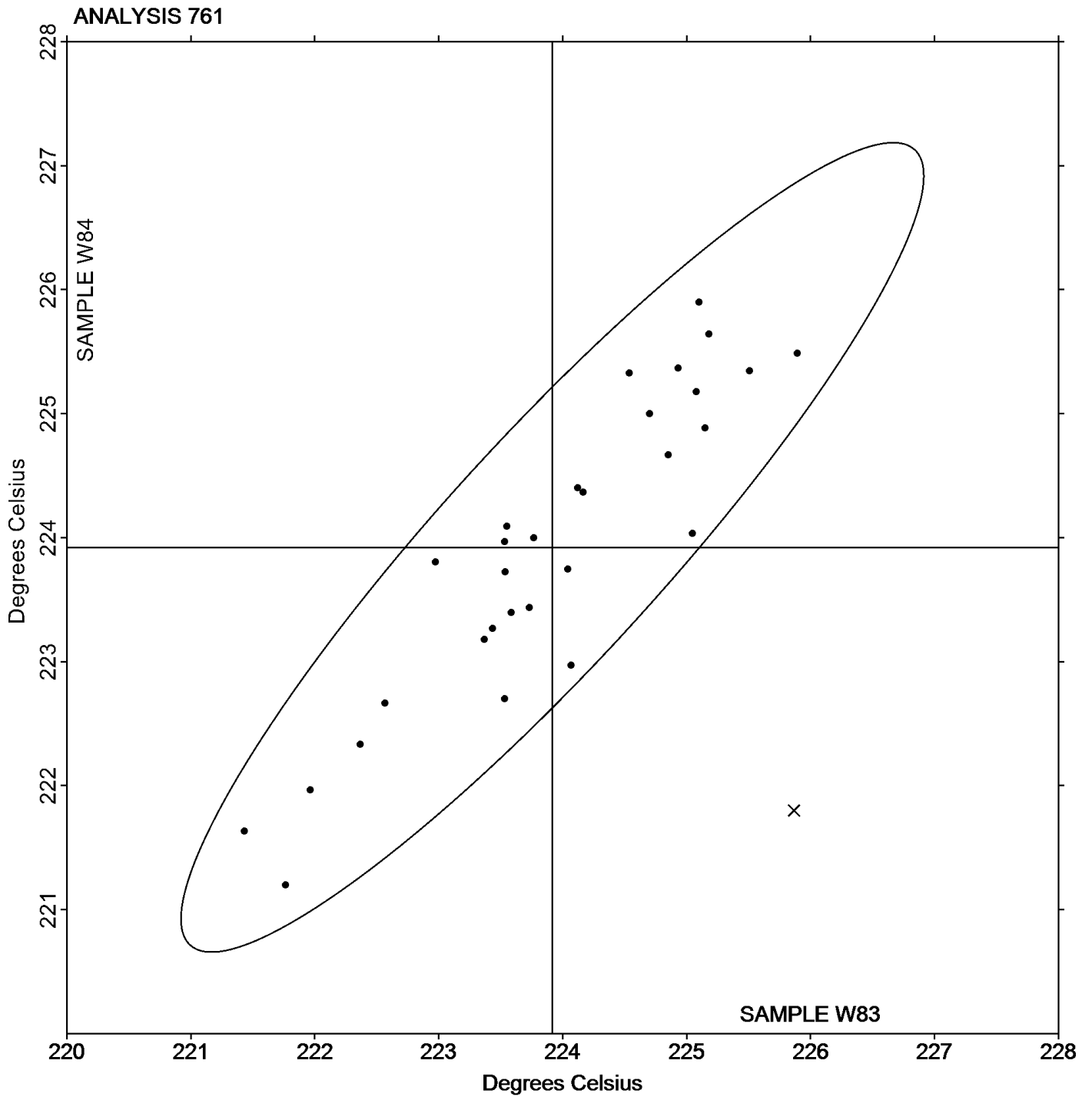


Plastics Interlaboratory Testing Program

Analysis 761
DSC Melt Temperature

Report #122
2nd Qtr 2022

Grand Mean Sample W83: 223.92 Degrees Celsius Grand Mean Sample W84: 223.92 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #122

Analysis 762

2nd Qtr 2022

DSC Enthalpy of Crystallization

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3PULJZ		46.63	-1.60	-0.38	49.83	1.43	0.32	TA
4ZQCD7		49.04	0.81	0.19	47.25	-1.15	-0.26	TA
6B3VHV	X	1.25	-46.97	-11.01	1.83	-46.57	-10.51	XX
6UXM4T		51.08	2.86	0.67	52.40	4.00	0.90	TA
94W7LY		43.16	-5.07	-1.19	44.62	-3.78	-0.85	TA
AC2G8V		48.32	0.10	0.02	46.71	-1.69	-0.38	TA
AL8J9L		46.43	-1.80	-0.42	47.21	-1.20	-0.27	TA
CGLGEL		43.94	-4.28	-1.00	42.98	-5.42	-1.22	NZ
DFAYYM		44.63	-3.60	-0.84	43.80	-4.60	-1.04	TA
EUNKZR		52.23	4.01	0.94	53.80	5.40	1.22	TA
G9JTQ6		49.48	1.25	0.29	50.80	2.40	0.54	XX
H4KR8M		42.53	-5.69	-1.33	39.11	-9.30	-2.10	SH
HGKJKR		59.00	10.77	2.52	57.97	9.56	2.16	XX
JLWV7K	*	59.20	10.97	2.57	57.48	9.08	2.05	TA
JWG92A		48.15	-0.07	-0.02	46.69	-1.71	-0.39	TA
K8R26A		44.13	-4.09	-0.96	43.43	-4.97	-1.12	XX
KEUDZ7		48.93	0.70	0.16	51.18	2.77	0.63	MT
UAPUVC		49.11	0.88	0.21	48.66	0.26	0.06	TA
V37QJ3		46.24	-1.99	-0.47	46.78	-1.62	-0.37	XX
VMC4FV		50.01	1.78	0.42	49.94	1.53	0.35	TA
VVLMG8		48.46	0.23	0.05	49.04	0.64	0.14	MT
VZERAB		42.77	-5.45	-1.28	44.62	-3.78	-0.85	NZ
XJ8629		47.05	-1.18	-0.28	46.39	-2.02	-0.46	TA
XX2UX6		46.98	-1.24	-0.29	50.75	2.34	0.53	PE
XZ8GBA		49.95	1.73	0.40	50.27	1.87	0.42	TA

Summary Statistics		
	Sample W83	Sample W84
Grand Means	48.228 Joules Per Gram	48.405 Joules Per Gram
Stnd Dev Btwn Labs	4.268 Joules Per Gram	4.432 Joules Per Gram
Statistics based on 24 of 25 reporting participants		

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #762

6B3VHV (X) - Extreme data.



Plastics Interlaboratory Testing Program

Analysis 762

DSC Enthalpy of Crystallization

Report #122

2nd Qtr 2022

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

PE Perkins Elmer Instruments

TA TA Instruments

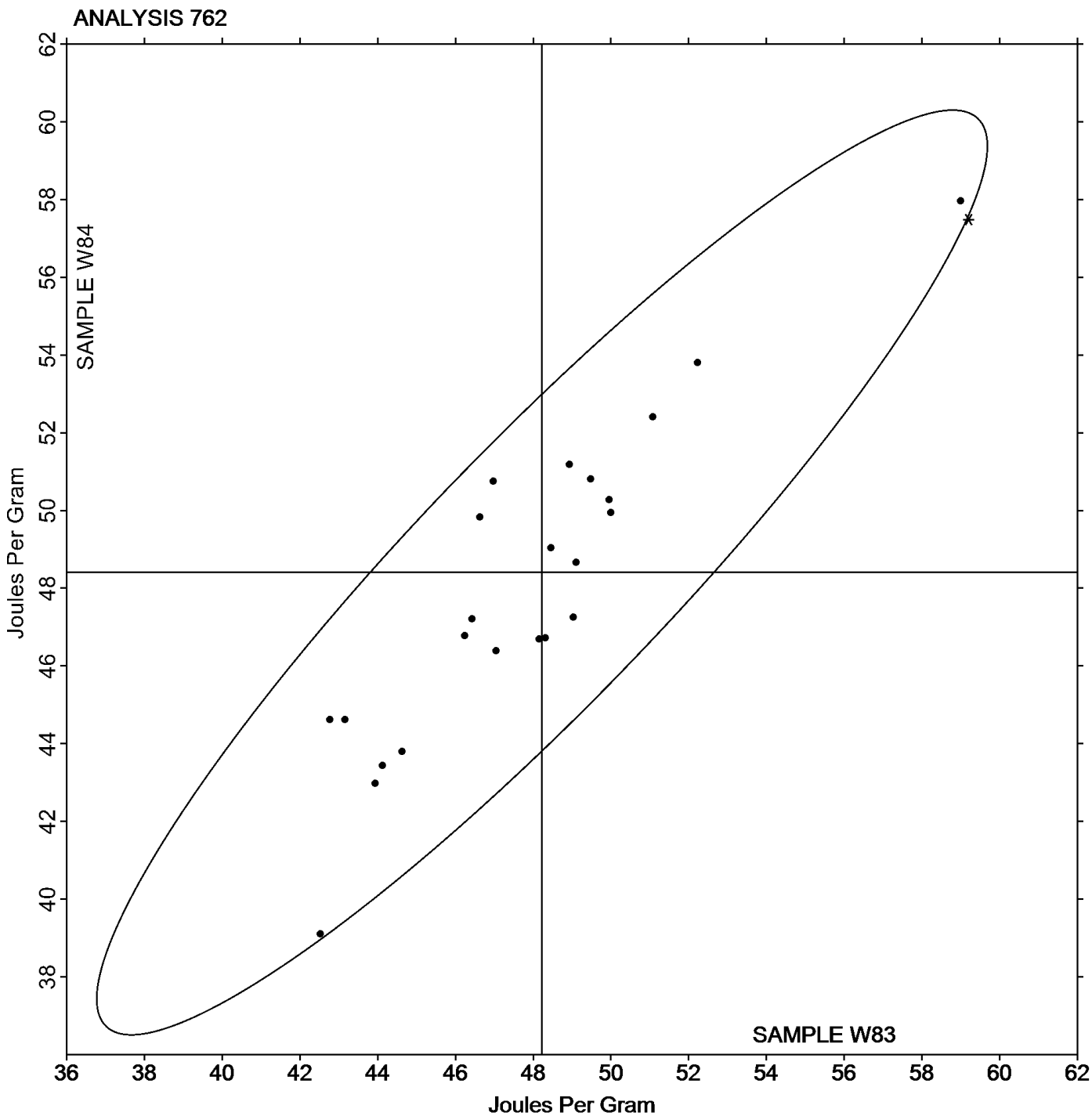
NZ Netzsch Instruments

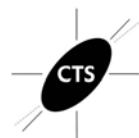
SH Shimadzu

XX Instrument manufacturer not specified by lab



Grand Mean Sample W83: 48.228 Joules Per Gram Grand Mean Sample W84: 48.405 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #122

Analysis 763

2nd Qtr 2022

DSC Enthalpy of Fusion

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3PULJZ		35.91	-6.88	-1.01	38.48	-3.42	-0.51	TA
4ZQCD7		44.63	1.84	0.27	42.90	1.00	0.15	TA
6B3VHV	X	3.36	-39.43	-5.79	3.46	-38.44	-5.68	XX
6UXM4T		52.26	9.47	1.39	51.70	9.80	1.45	TA
94W7LY		35.91	-6.88	-1.01	37.03	-4.87	-0.72	TA
AC2G8V		48.91	6.12	0.90	41.93	0.03	0.00	TA
AL8J9L		35.93	-6.86	-1.01	36.58	-5.32	-0.79	TA
CGLGEL		38.17	-4.62	-0.68	36.84	-5.06	-0.75	NZ
DFAYYM		45.62	2.83	0.42	39.35	-2.55	-0.38	TA
EUNKZR		55.87	13.08	1.92	55.57	13.67	2.02	TA
G9JTQ6		40.32	-2.47	-0.36	41.22	-0.68	-0.10	XX
H4KR8M		35.84	-6.95	-1.02	31.04	-10.86	-1.61	SH
HGKJKR		53.37	10.58	1.55	51.63	9.73	1.44	TA
JLWV7K		49.67	6.88	1.01	48.86	6.96	1.03	TA
JWG92A		40.57	-2.22	-0.33	39.37	-2.53	-0.37	TA
K8R26A		45.13	2.34	0.34	45.33	3.43	0.51	XX
KEUDZ7		40.30	-2.49	-0.37	43.78	1.88	0.28	MT
QXRGDG		37.37	-5.42	-0.80	33.31	-8.59	-1.27	TA
UAPUVC		44.30	1.51	0.22	37.80	-4.10	-0.61	TA
V37QJ3		36.38	-6.41	-0.94	36.72	-5.18	-0.77	XX
VMC4FV		58.76	15.97	2.35	58.76	16.86	2.49	TA
VVLMG8		39.51	-3.28	-0.48	39.70	-2.20	-0.33	MT
VZERAB		40.29	-2.50	-0.37	41.43	-0.47	-0.07	NZ
XJ8629		37.08	-5.71	-0.84	37.09	-4.81	-0.71	TA
XX2UX6		38.16	-4.63	-0.68	41.24	-0.66	-0.10	PE
XZ8GBA		39.52	-3.27	-0.48	39.84	-2.06	-0.30	TA

Summary Statistics

	Sample W83	Sample W84
Grand Means	42.791 Joules Per Gram	41.901 Joules Per Gram
Stnd Dev Btwn Labs	6.808 Joules Per Gram	6.762 Joules Per Gram

Statistics based on 25 of 26 reporting participants

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #763

6B3VHV (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

Analysis 763

DSC Enthalpy of Fusion

Report #122

2nd Qtr 2022

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

PE Perkins Elmer Instruments

TA TA Instruments

NZ Netzsch Instruments

SH Shimadzu

XX Instrument manufacturer not specified by lab



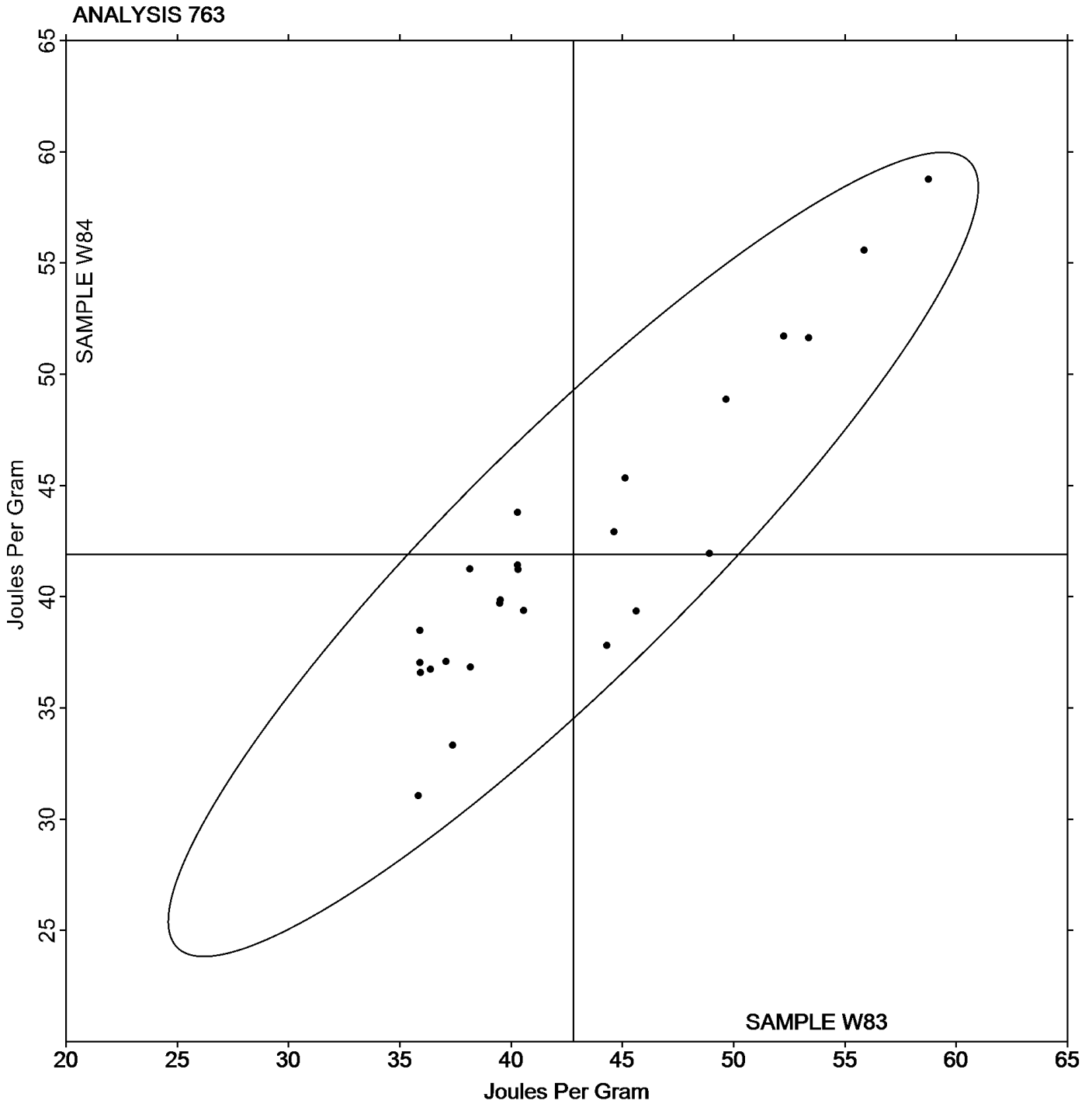
Plastics Interlaboratory Testing Program

Analysis 763 DSC Enthalpy of Fusion

Report #122

2nd Qtr 2022

Grand Mean Sample W83: 42.791 Joules Per Gram Grand Mean Sample W84: 41.901 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #122

Analysis 764

2nd Qtr 2022

DSC Glass Transition Temperature

WebCode	Data Flag	Sample V83			Sample V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2LC9WR		81.10	-0.84	-0.48	81.10	-0.86	-0.46	NZ
4ZQCD7		82.84	0.90	0.51	82.60	0.64	0.34	TA
6B3VHV	*	76.13	-5.81	-3.30	75.73	-6.23	-3.32	TA
6UXM4T	X	72.50	-9.45	-5.37	74.87	-7.09	-3.78	TA
94W7LY		81.62	-0.32	-0.18	81.97	0.01	0.00	TA
AC2G8V		83.33	1.39	0.79	83.20	1.24	0.66	TA
AL8J9L		81.29	-0.66	-0.37	81.09	-0.87	-0.46	TA
CGLGEL		83.97	2.02	1.15	84.27	2.31	1.23	NZ
EUNKZR		80.00	-1.94	-1.10	80.40	-1.56	-0.83	TA
G9JTQ6		82.85	0.91	0.51	82.50	0.54	0.29	XX
H4KR8M	X	89.22	7.28	4.13	87.71	5.75	3.07	SH
HGKJKR		82.73	0.79	0.45	83.37	1.41	0.75	TA
JLWV7K		82.60	0.66	0.37	82.51	0.55	0.29	TA
JWG92A		82.49	0.55	0.31	82.13	0.17	0.09	TA
K8R26A		79.57	-2.38	-1.35	79.80	-2.16	-1.15	XX
KEUDZ7		80.77	-1.18	-0.67	80.50	-1.46	-0.78	MT
QXRGDG		84.86	2.91	1.65	84.76	2.80	1.49	TA
UAPUVC		82.34	0.40	0.23	82.35	0.39	0.21	TA
V37QJ3		82.06	0.11	0.06	81.98	0.02	0.01	XX
VMC4FV		82.54	0.60	0.34	82.43	0.47	0.25	TA
VVLMG8		81.04	-0.90	-0.51	81.00	-0.96	-0.51	MT
VZERAB		82.83	0.89	0.50	83.10	1.14	0.61	NZ
XJ8629		83.00	1.06	0.60	82.95	0.99	0.53	TA
XX2UX6	*	83.17	1.22	0.69	84.33	2.37	1.27	PE
XZ8GBA		81.60	-0.34	-0.20	81.00	-0.96	-0.51	TA

Summary Statistics		
	Sample V83	Sample V84
Grand Means	81.945 Degrees Celsius	81.960 Degrees Celsius
Stnd Dev Btwn Labs	1.760 Degrees Celsius	1.875 Degrees Celsius
Statistics based on 23 of 25 reporting participants		

Sample V83: PET & Sample V84: PET



Plastics Interlaboratory Testing Program

Analysis 764

DSC Glass Transition Temperature

Report #122

2nd Qtr 2022

Comments on Assigned Data Flags for Test #764

H4KR8M (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample V83.

6UXM4T (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample V84.

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

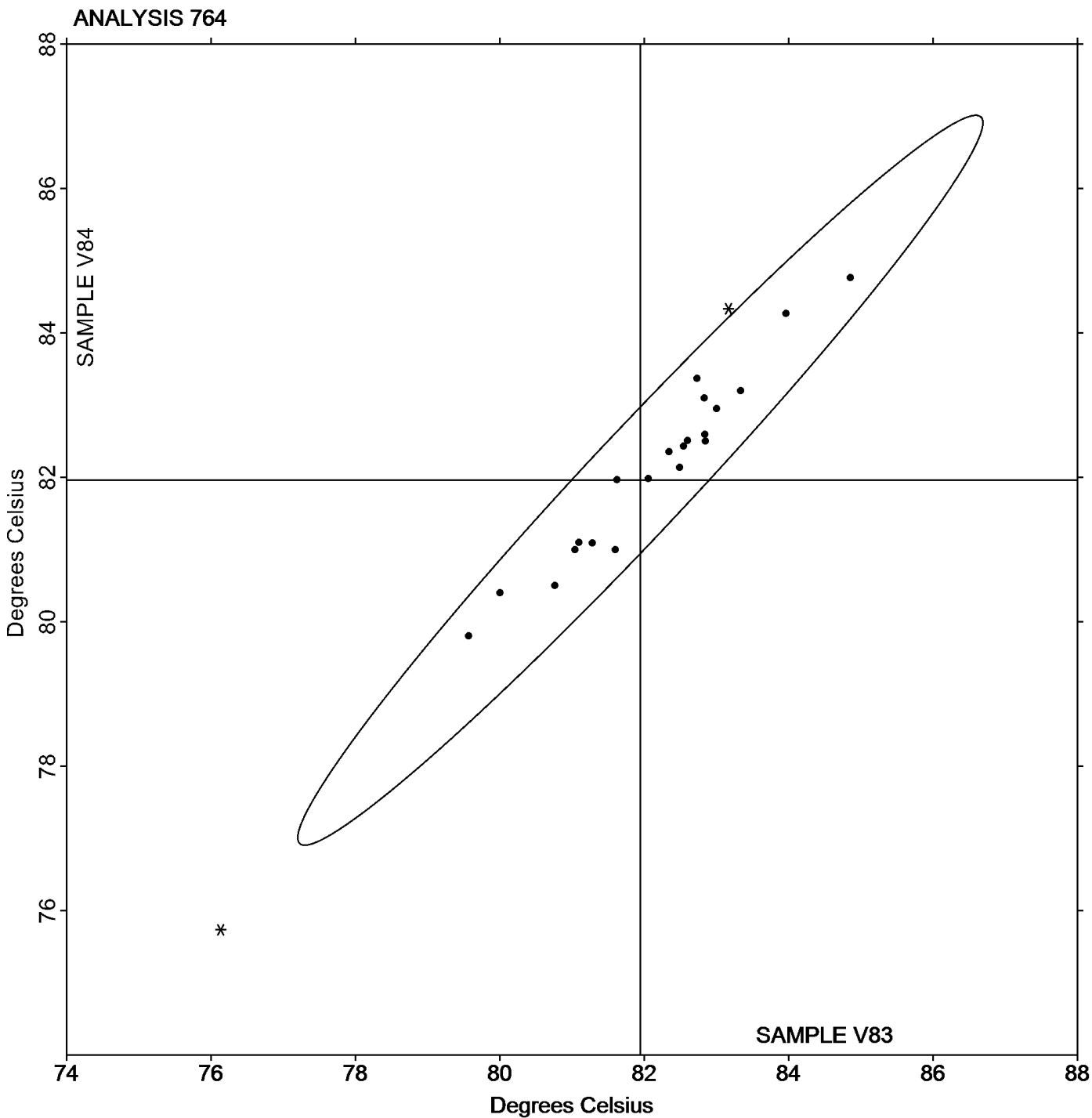
Analysis 764

DSC Glass Transition Temperature

Report #122

2nd Qtr 2022

Grand Mean Sample V83: 81.945 Degrees Celsius Grand Mean Sample V84: 81.960 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #122

Analysis 765

2nd Qtr 2022

Research Crystallization Peak Temperature

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		172.93	-1.88	-0.29	172.87	-1.89	-0.31	TA
4ZQCD7		174.79	-0.02	0.00	174.05	-0.71	-0.12	TA
6B3VHV	X	77.37	-97.44	-15.22	78.55	-96.20	-15.83	TA
6UXM4T		179.57	4.76	0.74	179.26	4.51	0.74	XX
9NJ2RR		185.85	11.04	1.72	186.01	11.26	1.85	SH
EUNKZR	X	52.23	-122.58	-19.15	53.80	-120.96	-19.91	TA
JWG92A		173.70	-1.11	-0.17	173.87	-0.89	-0.15	TA
K8R26A		161.73	-13.08	-2.04	163.00	-11.76	-1.93	XX
VVLMG8		173.27	-1.54	-0.24	173.30	-1.46	-0.24	MT
XX2UX6		177.07	2.26	0.35	176.37	1.61	0.27	XX
XZ8GBA		174.37	-0.44	-0.07	174.07	-0.69	-0.11	XX

Summary Statistics		
	Sample W83	Sample W84
Grand Means	174.809 Degrees Celsius	174.755 Degrees Celsius
Std Dev Btwn Labs	6.402 Degrees Celsius	6.075 Degrees Celsius
Statistics based on 9 of 11 reporting participants		

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #765

- EUNKZR (X) - Extreme data.
- 6B3VHV (X) - Data for both samples are low.

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

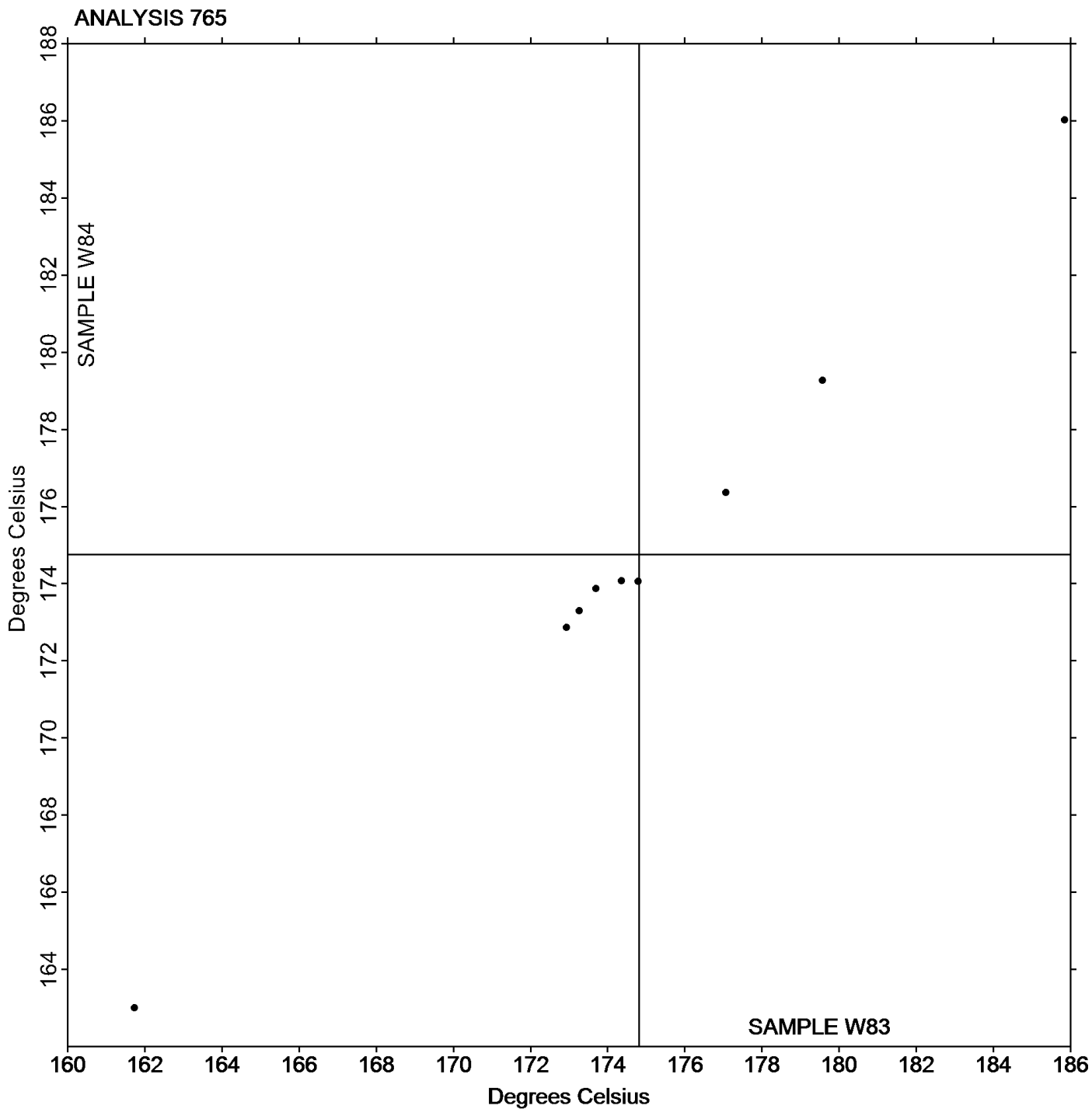
Analysis 765

Research Crystallization Peak Temperature

Report #122

2nd Qtr 2022

Grand Mean Sample W83: 174.81 Degrees Celsius Grand Mean Sample W84: 174.76 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 #122

Analysis 766

2nd Qtr 2022

Research Melting Peak Temperature

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3TWPA2		224.04	0.63	0.61	223.74	0.28	0.24	TA
426DMZ		222.73	-0.68	-0.66	223.13	-0.33	-0.28	TA
4ZQCD7		222.97	-0.44	-0.43	223.80	0.34	0.29	TA
6B3VHV	X	106.06	-117.36	-114.56	106.29	-117.17	-99.57	TA
6UXM4T		222.57	-0.85	-0.83	222.67	-0.79	-0.67	XX
9NJ2RR		224.47	1.06	1.03	224.62	1.16	0.98	SH
EUNKZR		221.77	-1.65	-1.61	221.20	-2.26	-1.92	XX
JWG92A		223.40	-0.02	-0.02	223.30	-0.16	-0.14	TA
K8R26A		224.93	1.52	1.48	225.37	1.91	1.62	XX
VVLMG8		223.70	0.29	0.28	223.40	-0.06	-0.05	MT
XX2UX6		224.60	1.19	1.16	224.60	1.14	0.97	XX
XZ8GBA		222.37	-1.05	-1.02	222.23	-1.23	-1.04	TA

Summary Statistics		
	Sample W83	Sample W84
Grand Means	223.414 Degrees Celsius	223.460 Degrees Celsius
Std Dev Btwn Labs	1.024 Degrees Celsius	1.177 Degrees Celsius
Statistics based on 11 of 12 reporting participants		

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #766

6B3VHV (X) - Extreme data.

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

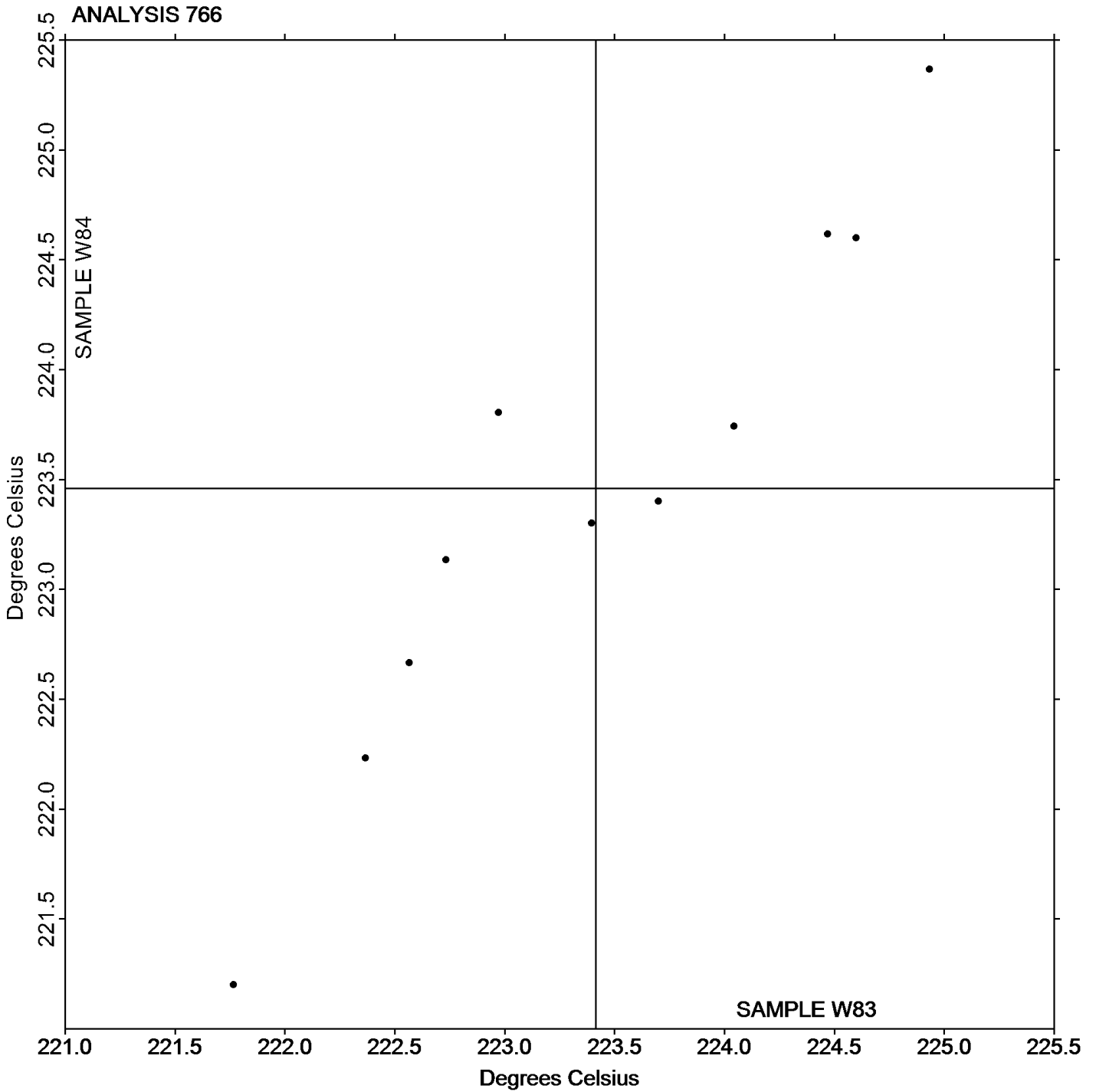
Analysis 766

Research Melting Peak Temperature

Report #122

2nd Qtr 2022

Grand Mean Sample W83: 223.41 Degrees Celsius Grand Mean Sample W84: 223.46 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 #122

Analysis 767

2nd Qtr 2022

Research Heat of Crystallization

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		44.28	-5.72	-1.15	43.84	-6.46	-0.93	TA
4ZQCD7		49.04	-0.97	-0.19	47.25	-3.05	-0.44	TA
6B3VHV	X	1.25	-48.75	-9.81	1.83	-48.47	-6.94	TA
6UXM4T		51.08	1.08	0.22	52.40	2.11	0.30	XX
9NJ2RR		60.28	10.28	2.07	66.49	16.19	2.32	SH
EUNKZR	X	180.43	130.43	26.25	182.43	132.14	18.92	XX
JWG92A		48.15	-1.85	-0.37	47.03	-3.27	-0.47	TA
K8R26A		44.13	-5.87	-1.18	43.43	-6.86	-0.98	XX
VVLMG8		48.63	-1.37	-0.28	48.97	-1.33	-0.19	MT
XX2UX6		54.13	4.13	0.83	53.78	3.48	0.50	XX
XZ8GBA		50.30	0.30	0.06	49.47	-0.82	-0.12	TA

Summary Statistics

	Sample W83	Sample W84
Grand Means	50.004 Joules Per Gram	50.296 Joules Per Gram
Std Dev Btwn Labs	4.968 Joules Per Gram	6.983 Joules Per Gram

Statistics based on 9 of 11 reporting participants

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #767

- EUNKZR (X) - Extreme data.
- 6B3VHV (X) - Data for both samples are low.

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

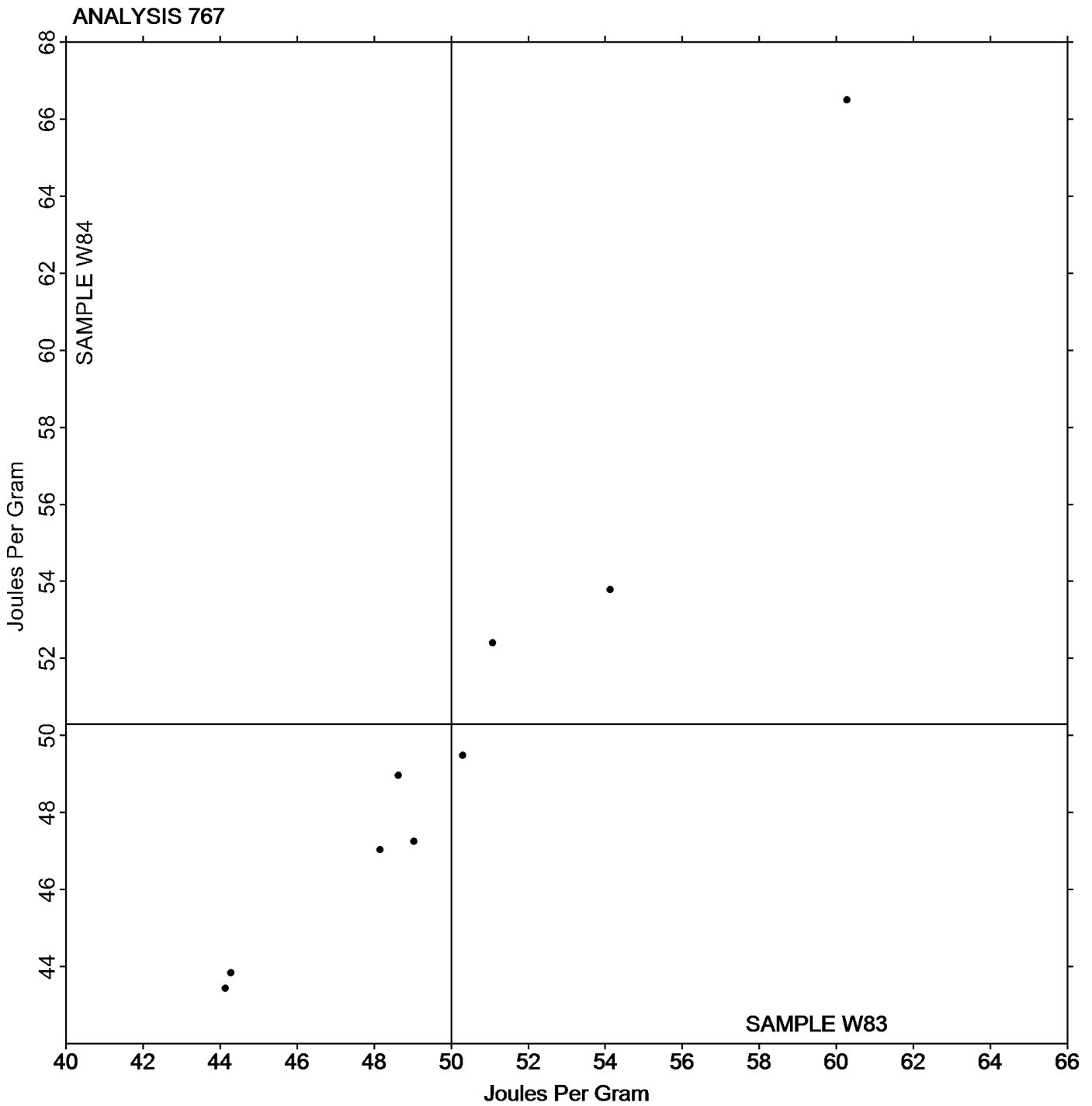
Analysis 767

Research Heat of Crystallization

Report #122

2nd Qtr 2022

Grand Mean Sample W83: 50.004 Joules Per Gram Grand Mean Sample W84: 50.296 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 #122

Analysis 768

2nd Qtr 2022

Research Heat of Fusion

WebCode	Data Flag	Sample W83			Sample W84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		37.86	-5.85	-0.96	37.34	-6.10	-1.01	TA
4ZQCD7		44.63	0.92	0.15	42.90	-0.54	-0.09	TA
6B3VHV	X	3.37	-40.34	-6.62	3.46	-39.99	-6.60	TA
6UXM4T		52.26	8.55	1.40	51.70	8.26	1.36	XX
9NJ2RR		38.75	-4.96	-0.81	37.60	-5.85	-0.97	SH
EUNKZR		55.87	12.16	2.00	55.57	12.12	2.00	TA
JWG92A		40.44	-3.27	-0.54	40.10	-3.35	-0.55	TA
K8R26A		45.13	1.43	0.23	45.33	1.89	0.31	XX
VVLMG8		39.46	-4.25	-0.70	39.64	-3.81	-0.63	MT
XX2UX6		43.76	0.05	0.01	44.47	1.03	0.17	XX
XZ8GBA		38.91	-4.80	-0.79	39.79	-3.65	-0.60	TA

Summary Statistics		
	Sample W83	Sample W84
Grand Means	43.706 Joules Per Gram	43.445 Joules Per Gram
Stnd Dev Btwn Labs	6.095 Joules Per Gram	6.060 Joules Per Gram
Statistics based on 10 of 11 reporting participants		

Sample W83: PBT & Sample W84: PBT

Comments on Assigned Data Flags for Test #768

6B3VHV (X) - Data for both samples are low.

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

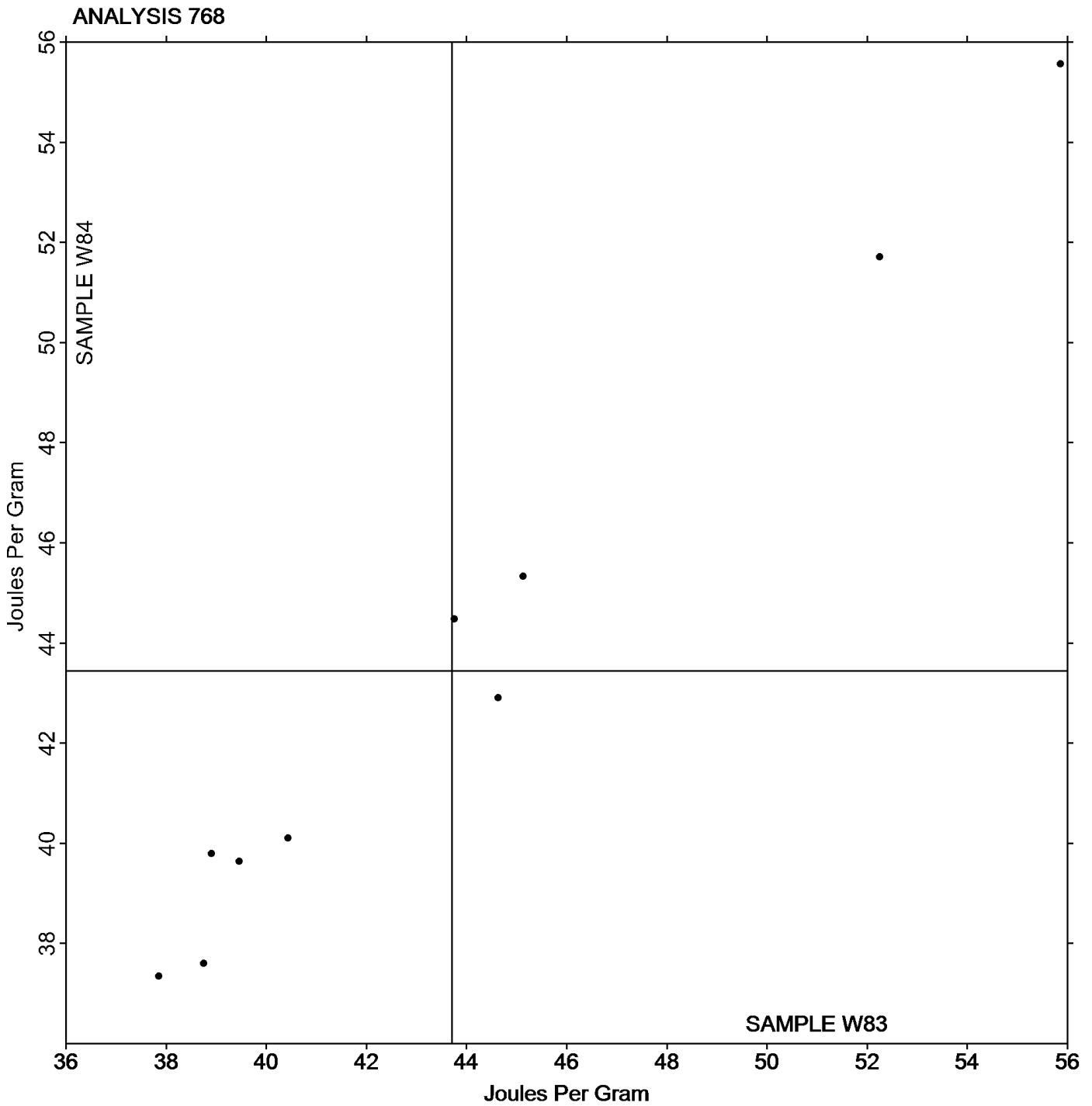
Analysis 768

Research Heat of Fusion

Report #122

2nd Qtr 2022

Grand Mean Sample W83: 43.706 Joules Per Gram Grand Mean Sample W84: 43.445 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 #122

Analysis 769

2nd Qtr 2022

Research Glass Transition Temperature

WebCode	Data Flag	Sample V83			Sample V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		81.73	1.77	0.57	81.00	0.92	0.36	TA
4ZQCD7		82.84	2.87	0.93	82.60	2.52	0.99	TA
6B3VHV		75.97	-4.00	-1.29	75.65	-4.43	-1.73	TA
6UXM4T		72.50	-7.47	-2.41	74.87	-5.21	-2.04	XX
9NJ2RR		80.62	0.66	0.21	79.94	-0.14	-0.05	SH
EUNKZR		80.00	0.03	0.01	80.33	0.26	0.10	TA
JWG92A		82.49	2.52	0.82	82.13	2.06	0.80	TA
K8R26A		79.57	-0.40	-0.13	79.80	-0.28	-0.11	XX
VVLMG8		80.90	0.93	0.30	81.07	0.99	0.39	MT
XX2UX6		81.83	1.87	0.60	82.20	2.12	0.83	XX
XZ8GBA		81.17	1.20	0.39	81.27	1.19	0.47	TA

Summary Statistics		
	Sample V83	Sample V84
Grand Means	79.965 Degrees Celsius	80.078 Degrees Celsius
Std Dev Btwn Labs	3.097 Degrees Celsius	2.554 Degrees Celsius
Statistics based on 11 of 11 reporting participants		

Sample V83: PET & Sample V84: PET

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

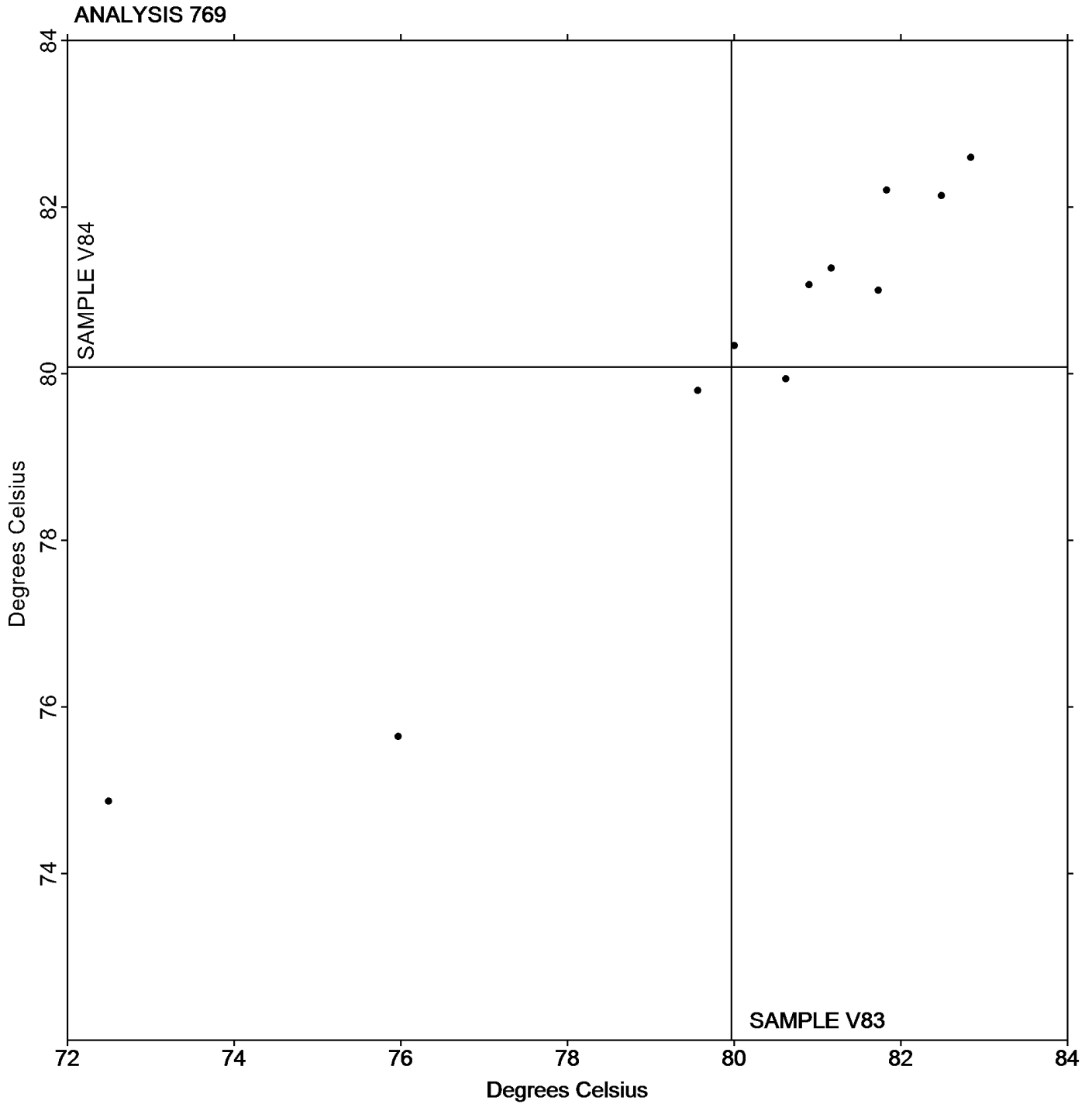
Analysis 769

Research Glass Transition Temperature

Report #122

2nd Qtr 2022

Grand Mean Sample V83: 79.965 Degrees Celsius Grand Mean Sample V84: 80.078 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 #122

Analysis 770

2nd Qtr 2022

Tensile Stress at Yield, Film Samples - psi

WebCode	Data Flag	Sample B83			Sample B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		2,078	151	0.67	1,740	84	0.53	IN
48AEK9	*	2,252	325	1.45	2,046	391	2.47	LI
8M8ZD7		2,058	131	0.59	1,704	48	0.31	IN
94W7LY		2,021	94	0.42	1,685	29	0.18	IM
9HTRGT		1,962	35	0.16	1,738	83	0.52	OA
B3PRYP		1,927	0	0.00	1,595	-60	-0.38	IN
EPURJH		2,014	87	0.39	1,701	45	0.29	IN
GAQ688		1,986	60	0.27	1,693	37	0.24	IN
H2DG8D		1,590	-336	-1.50	1,503	-152	-0.96	IN
H4KR8M		2,155	228	1.02	1,649	-7	-0.04	WZ
JBWAZL		1,495	-432	-1.93	1,360	-296	-1.87	IN
PDMNMC		1,996	69	0.31	1,666	11	0.07	MT
TP78XJ		1,965	38	0.17	1,731	76	0.48	SH
XFZWQ4		1,507	-420	-1.87	1,427	-229	-1.45	TO
YND6R6		1,897	-30	-0.13	1,595	-60	-0.38	IN

Summary Statistics

	Sample B83	Sample B84
Grand Means	1,926.9 psi	1,655.6 psi
Stnd Dev Btwn Labs	224.0 psi	158.0 psi

Statistics based on 15 of 15 reporting participants

Sample B83: LDPE & Sample B84: 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

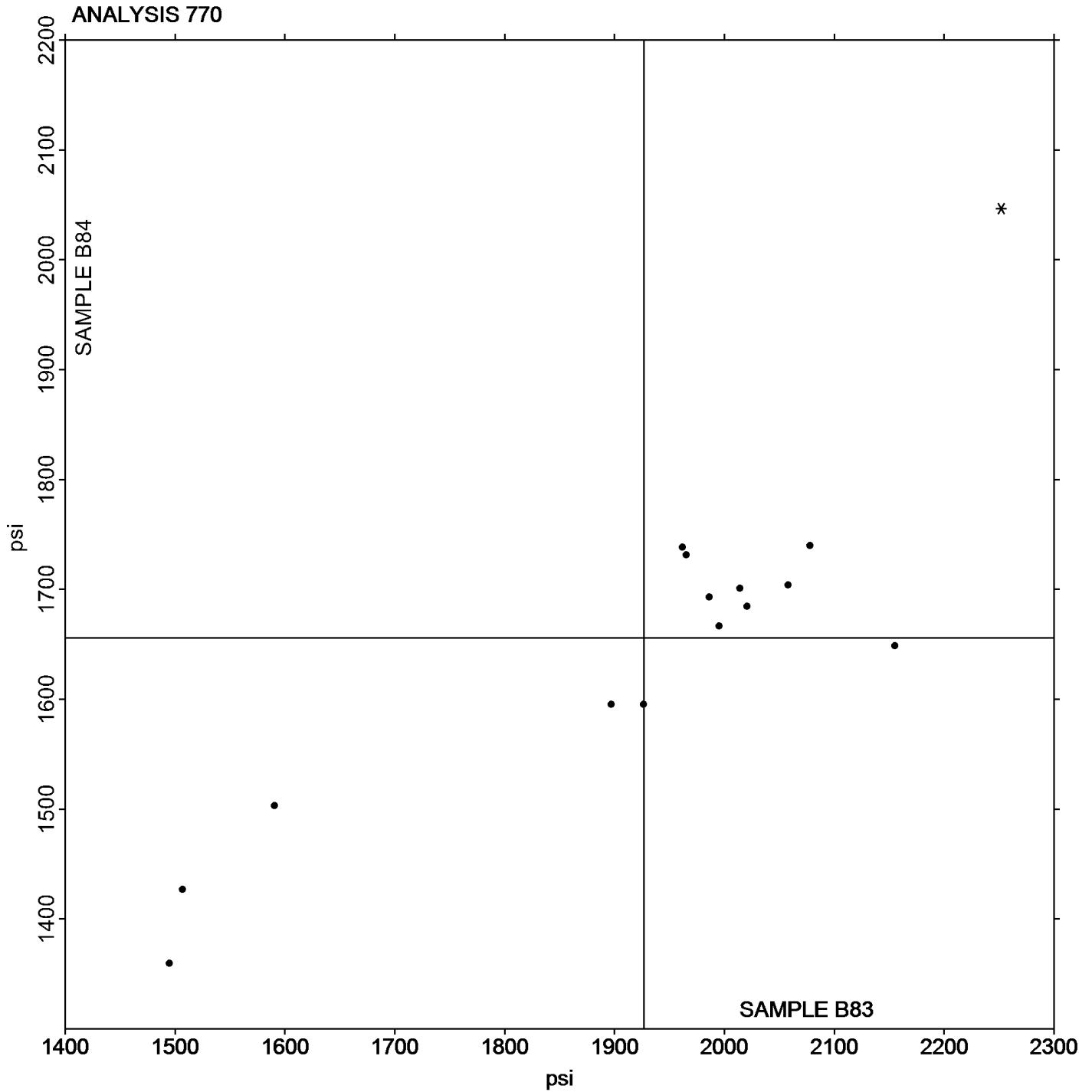
Report #122

Analysis 770

2nd Qtr 2022

Tensile Stress at Yield, Film Samples - psi

Grand Mean Sample B83: 1,926.87 psi Grand Mean Sample B84: 1,655.60 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 #122

Analysis 771

2nd Qtr 2022

Tensile Stress at Break, Film Samples - psi

WebCode	Data Flag	Sample B83			Sample B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2MRHZZ		3,844	481	0.98	4,181	754	1.61	MT
3DGQVN		2,979	-383	-0.78	2,762	-666	-1.42	IN
3UMTVG		3,707	345	0.70	3,783	356	0.76	XX
426DMZ		3,936	574	1.17	4,102	674	1.44	IN
48AEK9		3,518	156	0.32	3,081	-346	-0.74	LI
837M22		3,627	265	0.54	3,448	20	0.04	MT
8M8ZD7		3,929	567	1.16	3,771	343	0.73	IN
94W7LY		3,477	115	0.24	3,636	208	0.45	IM
9HTRGT		3,554	191	0.39	3,392	-36	-0.08	OA
B3PRYP		3,140	-222	-0.45	3,079	-349	-0.75	IN
DCCFWN		3,512	150	0.31	3,743	315	0.68	IN
EPURJH		3,317	-45	-0.09	3,509	81	0.17	XX
GAQ688		3,795	433	0.88	3,543	115	0.25	IN
GEFUGH		3,646	283	0.58	4,191	763	1.63	WZ
H2DG8D		3,692	330	0.67	3,673	245	0.52	IN
H4KR8M		3,813	451	0.92	3,664	236	0.51	WZ
JBWAZL		2,482	-881	-1.80	2,920	-507	-1.09	IN
NNNPQG		2,354	-1,008	-2.06	3,107	-320	-0.69	XX
PDMNMC		3,099	-263	-0.54	3,168	-259	-0.56	MT
PRJPFC		3,431	69	0.14	3,474	47	0.10	TH
TP78XJ		3,593	231	0.47	3,900	472	1.01	SH
XFZWQ4		2,694	-668	-1.36	2,747	-681	-1.46	TO
XZ8GBA		2,266	-1,096	-2.24	2,606	-822	-1.76	UC
YND6R6		3,285	-77	-0.16	2,781	-646	-1.38	IN

Summary Statistics		Sample B83	Sample B84
Grand Means		3,362.1 psi	3,427.5 psi
Stnd Dev Btwn Labs		489.9 psi	467.4 psi
Statistics based on 24 of 24 reporting participants			

Sample B83: LDPE & Sample B84: LDPE



Plastics Interlaboratory Testing Program

Analysis 771

Tensile Stress at Break, Film Samples - psi

Report #122

2nd 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

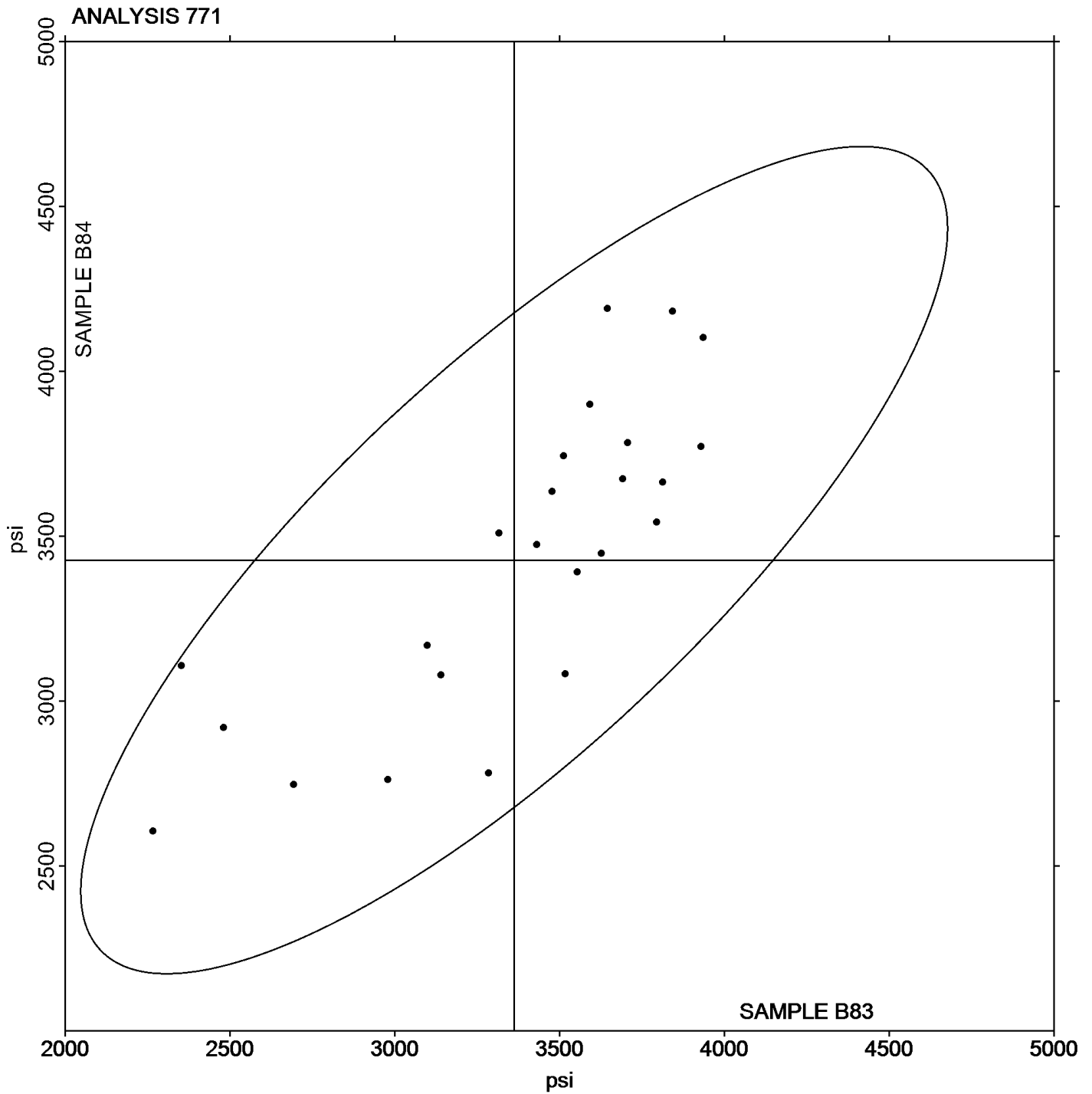
Report #122

Analysis 771

2nd Qtr 2022

Tensile Stress at Break, Film Samples - psi

Grand Mean Sample B83: 3,362.06 psi Grand Mean Sample B84: 3,427.52 psi





Plastics Interlaboratory Testing Program

Report #122

Analysis 772

2nd Qtr 2022

Percent Elongation at Yield, Films

WebCode	Data Flag	Sample B83			Sample B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		69.57	-9.51	-0.32	38.12	-6.47	-0.35	IN
48AEK9		84.24	5.16	0.18	12.78	-31.81	-1.71	LI
8M8ZD7		88.82	9.74	0.33	46.70	2.11	0.11	IN
94W7LY		115.62	36.54	1.25	61.02	16.42	0.88	IM
B3PRYP		84.90	5.82	0.20	62.27	17.68	0.95	IN
EPURJH		89.37	10.29	0.35	50.49	5.90	0.32	IN
GAQ688		77.72	-1.36	-0.05	47.08	2.49	0.13	IN
H2DG8D		8.29	-70.79	-2.42	8.17	-36.42	-1.96	IN
H4KR8M		66.80	-12.28	-0.42	40.20	-4.39	-0.24	WZ
JBWAZL		101.67	22.59	0.77	54.83	10.24	0.55	IN
PDMNMC		77.88	-1.20	-0.04	47.67	3.08	0.17	MT
PRJPFC		84.86	5.78	0.20	38.74	-5.86	-0.32	TH
TP78XJ		98.38	19.30	0.66	76.17	31.58	1.70	SH
XFZWQ4		23.99	-55.09	-1.88	24.45	-20.14	-1.09	TO
YND6R6		114.08	35.00	1.19	60.21	15.62	0.84	IN

Summary Statistics		
	Sample B83	Sample B84
Grand Means	79.080 Percent	44.594 Percent
Stnd Dev Btwn Labs	29.311 Percent	18.561 Percent
Statistics based on 15 of 15 reporting participants		

Sample B83: LDPE & Sample B84: LDPE

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

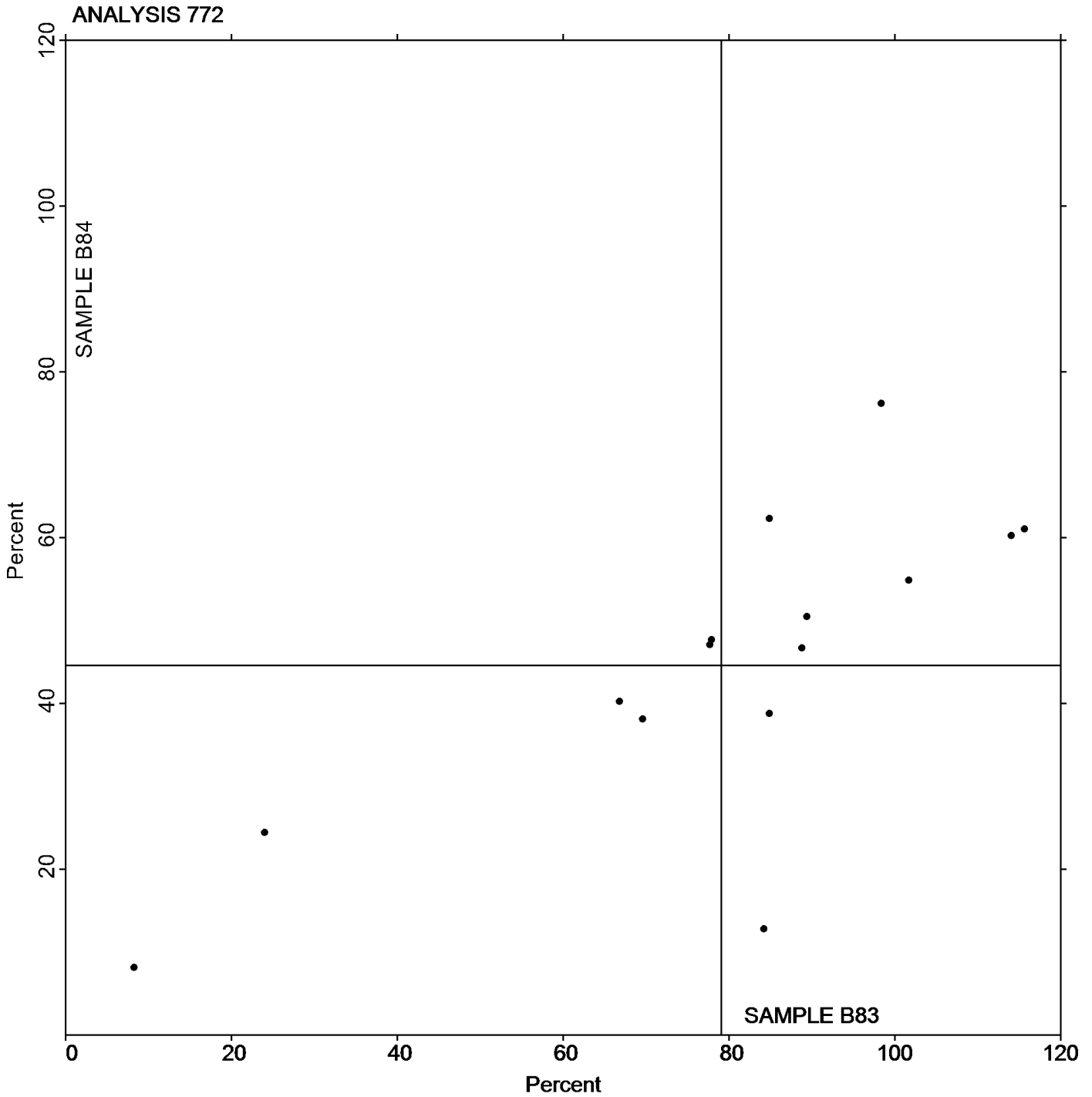
Analysis 772

Percent Elongation at Yield, Films

Report #122

2nd Qtr 2022

Grand Mean Sample B83: 79.080 Percent Grand Mean Sample B84: 44.594 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 #122

Analysis 773

2nd Qtr 2022

Percent Elongation at Break, Film Samples

WebCode	Data Flag	Sample B83			Sample B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3DGQVN		991.0	234.1	1.73	1,130.4	241.1	1.68	IN
3UMTVG		930.9	174.0	1.29	928.9	39.6	0.28	XX
426DMZ		639.9	-117.0	-0.87	737.4	-151.9	-1.06	IN
48AEK9		729.0	-27.9	-0.21	779.9	-109.4	-0.76	LI
837M22		595.1	-161.8	-1.20	661.2	-228.1	-1.59	MT
8M8ZD7		792.6	35.7	0.26	906.6	17.3	0.12	IN
94W7LY		892.3	135.3	1.00	1,136.2	246.9	1.72	IM
9HTRGT		747.5	-9.4	-0.07	920.6	31.3	0.22	OA
B3PRYP		737.0	-19.9	-0.15	900.6	11.3	0.08	IN
DCCFWN		677.5	-79.4	-0.59	817.0	-72.3	-0.50	IN
EPURJH		820.0	63.1	0.47	1,060.0	170.7	1.19	IN
GAQ688		639.7	-117.2	-0.87	683.1	-206.3	-1.44	IN
H2DG8D		709.3	-47.7	-0.35	796.1	-93.3	-0.65	IN
H4KR8M		581.0	-175.9	-1.30	694.0	-195.3	-1.36	WZ
JBWAZL		745.2	-11.7	-0.09	933.3	44.0	0.31	IN
NNNPQG		557.6	-199.3	-1.48	870.2	-19.1	-0.13	XX
PDMNMC		567.7	-189.2	-1.40	739.3	-150.0	-1.05	MT
PRJPFC		896.6	139.7	1.03	1,072.8	183.5	1.28	TH
TP78XJ		851.7	94.8	0.70	992.3	103.0	0.72	SH
XFZWQ4		801.3	44.4	0.33	939.2	49.9	0.35	TO
XZ8GBA	X	12.8	-744.1	-5.51	20.6	-868.7	-6.05	UC
YND6R6		992.2	235.3	1.74	976.6	87.3	0.61	IN

Summary Statistics		
	Sample B83	Sample B84
Grand Means	756.91 Percent	889.32 Percent
Std Dev Btwn Labs	135.01 Percent	143.54 Percent
Statistics based on 21 of 22 reporting participants		

Sample B83: LDPE & Sample B84: LDPE

Comments on Assigned Data Flags for Test #773

XZ8GBA (X) - Extreme data.



Plastics Interlaboratory Testing Program

Analysis 773

Percent Elongation at Break, Film Samples

Report #122

2nd 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

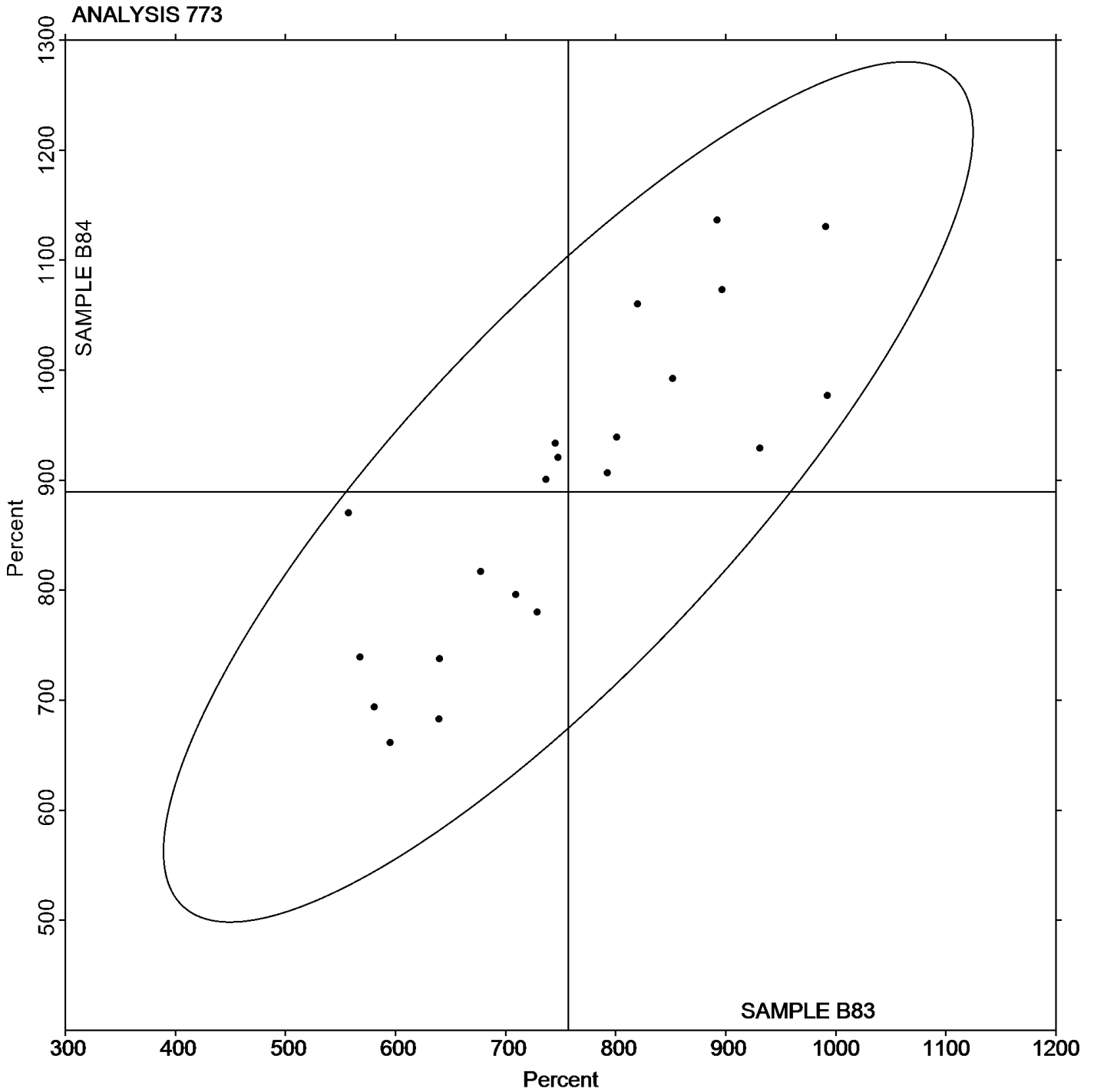
Analysis 773

Percent Elongation at Break, Film Samples

Report #122

2nd Qtr 2022

Grand Mean Sample B83: 756.91 Percent Grand Mean Sample B84: 889.32 Percent





Plastics Interlaboratory Testing Program

Report #122

Analysis 774

2nd Qtr 2022

Thickness of Film Tensile Samples - mils

WebCode	Data Flag	Sample B83			Sample B84		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2MRHZZ		2.7559	0.0597	0.72	2.7559	-0.1726	-1.84
3DGQVN		2.7402	0.0439	0.53	2.8780	-0.0505	-0.54
426DMZ		2.6090	-0.0873	-1.06	2.8670	-0.0615	-0.65
48AEK9	X	2.5272	-0.1690	-2.05	2.4619	-0.4666	-4.97
837M22		2.8100	0.1137	1.38	2.8500	-0.0785	-0.84
8M8ZD7		2.6400	-0.0563	-0.68	3.0300	0.1015	1.08
94W7LY		2.6460	-0.0503	-0.61	3.0320	0.1035	1.10
9HTRGT		2.7870	0.0907	1.10	3.0760	0.1475	1.57
B3PRYP		2.6680	-0.0283	-0.34	2.9340	0.0055	0.06
DCCFWN		2.7730	0.0767	0.93	2.9060	-0.0225	-0.24
EPURJH		2.6560	-0.0403	-0.49	2.8630	-0.0655	-0.70
GAQ688		2.7402	0.0440	0.53	2.8898	-0.0387	-0.41
GEFUGH		2.6654	-0.0309	-0.38	2.9528	0.0243	0.26
H2DG8D		2.7440	0.0477	0.58	2.8460	-0.0825	-0.88
H4KR8M		2.5709	-0.1254	-1.52	3.1142	0.1857	1.98
HLJ2QK		2.5850	-0.1113	-1.35	2.8230	-0.1055	-1.12
JBWAZL		2.5800	-0.1163	-1.41	2.8800	-0.0485	-0.52
JPYW8G		2.7640	0.0677	0.82	2.9420	0.0135	0.14
PDMNMC		2.6000	-0.0963	-1.17	3.0300	0.1015	1.08
TP78XJ		2.7225	0.0262	0.32	2.8363	-0.0922	-0.98
XFZWQ4		2.7166	0.0203	0.25	2.8819	-0.0465	-0.50
XZ8GBA		2.6700	-0.0263	-0.32	3.0000	0.0715	0.76
YND6R6		2.8740	0.1777	2.16	3.0390	0.1105	1.18

Summary Statistics		
	Sample B83	Sample B84
Grand Means	2.69625 mils	2.92849 mils
Stnd Dev Btwn Labs	0.08231 mils	0.09391 mils
Statistics based on 22 of 23 reporting participants		

Sample B83: LDPE & Sample B84: LDPE

Comments on Assigned Data Flags for Test #774

48AEK9 (X) - Data for sample B84 are low.



Plastics Interlaboratory Testing Program

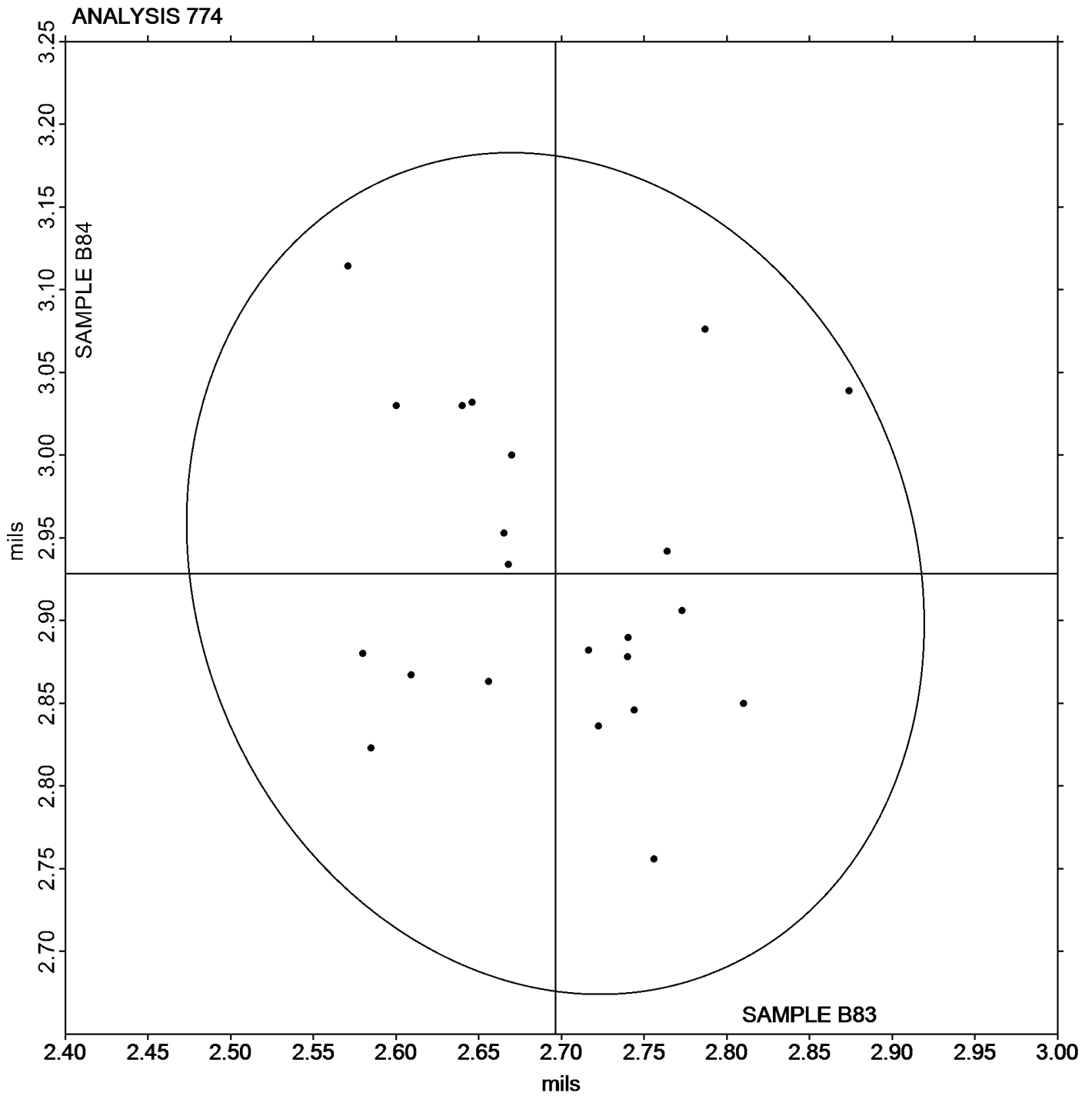
Analysis 774

Thickness of Film Tensile Samples - mils

Report #122

2nd Qtr 2022

Grand Mean Sample B83: 2.6963 mils Grand Mean Sample B84: 2.9285 mils





Plastics Interlaboratory Testing Program

Report #122

Analysis 775

2nd Qtr 2022

Secant Modulus at 1% Strain - psi

WebCode	Data Flag	Sample B83			Sample B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3DGQVN		27,201	-6,003	-1.37	23,163	-10,543	-1.81	IN
426DMZ		33,319	114	0.03	33,749	43	0.01	IN
48AEK9		39,012	5,807	1.32	43,932	10,226	1.75	LI
8M8ZD7		32,489	-716	-0.16	32,502	-1,203	-0.21	IN
94W7LY		34,060	855	0.20	33,824	119	0.02	IM
9HTRGT		32,927	-278	-0.06	32,904	-802	-0.14	OA
B3PRYP		31,668	-1,537	-0.35	32,088	-1,618	-0.28	IN
H2DG8D		32,351	-854	-0.19	34,220	515	0.09	IN
H4KR8M	X	46,108	12,903	2.94	39,929	6,224	1.07	WZ
PDMNMC		35,106	1,901	0.43	35,585	1,879	0.32	MT
TP78XJ		42,711	9,506	2.17	43,679	9,974	1.71	SH
XFZWQ4		27,310	-5,895	-1.34	26,720	-6,986	-1.20	TO
YND6R6		30,304	-2,901	-0.66	32,101	-1,605	-0.27	IN

Summary Statistics		
	Sample B83	Sample B84
Grand Means	33,204.8 psi	33,705.5 psi
Std Dev Btwn Labs	4,383.2 psi	5,839.4 psi
Statistics based on 12 of 13 reporting participants		

Sample B83: LDPE & Sample B84: LDPE

Comments on Assigned Data Flags for Test #775

H4KR8M (X) - Data for sample B83 are low. Inconsistent within the determinations of both samples. Inconsistent in testing between samples.

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

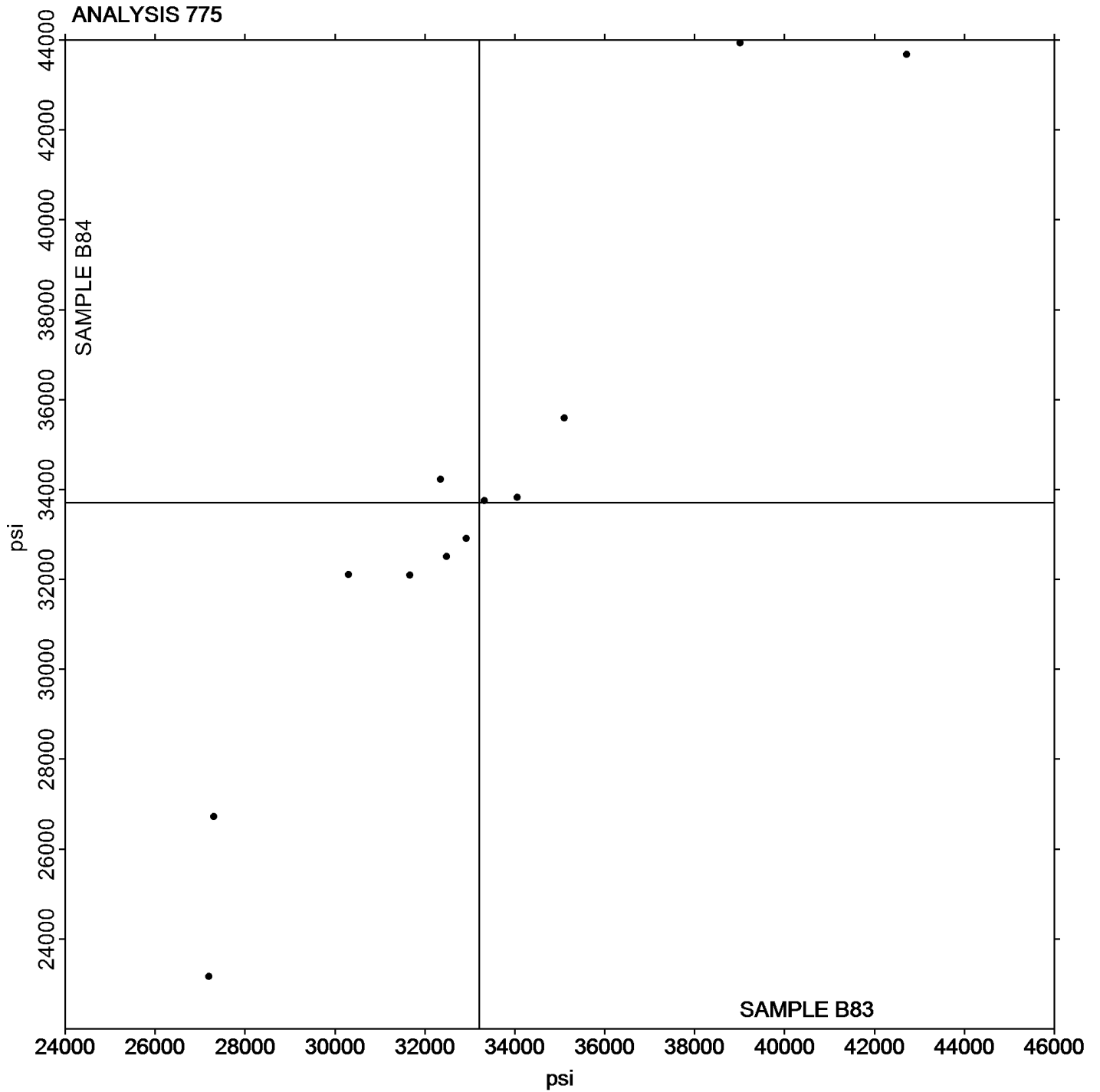
Report #122

Analysis 775

2nd Qtr 2022

Secant Modulus at 1% Strain - psi

Grand Mean Sample B83: 33,204.80 psi Grand Mean Sample B84: 33,705.54 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 #122

Analysis 776

2nd Qtr 2022

Secant Modulus at 2% Strain - psi

WebCode	Data Flag	Sample B83			Sample B84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3DGQVN		25,200	-3,245	-1.23	23,858	-4,860	-1.34	IN
426DMZ		28,895	450	0.17	28,877	159	0.04	IN
48AEK9		32,941	4,495	1.71	36,671	7,952	2.19	LI
8M8ZD7		28,039	-406	-0.15	27,830	-888	-0.24	IN
94W7LY		28,666	220	0.08	28,114	-604	-0.17	IM
B3PRYP		25,091	-3,355	-1.28	25,267	-3,452	-0.95	IN
H2DG8D		27,828	-618	-0.24	28,603	-116	-0.03	MT
H4KR8M	X	46,108	17,662	6.72	39,944	11,225	3.09	WZ
PDMNMC		29,179	733	0.28	29,577	859	0.24	MT
TP78XJ		33,061	4,615	1.76	33,578	4,860	1.34	SH
XFZWQ4		27,360	-1,086	-0.41	26,770	-1,948	-0.54	TO
YND6R6		26,642	-1,803	-0.69	26,757	-1,961	-0.54	IN

Summary Statistics		
	Sample B83	Sample B84
Grand Means	28,445.7 psi	28,718.3 psi
Std Dev Btwn Labs	2,628.0 psi	3,632.8 psi
Statistics based on 11 of 12 reporting participants		

Sample B83: LDPE & Sample B84: LDPE

Comments on Assigned Data Flags for Test #776

H4KR8M (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

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

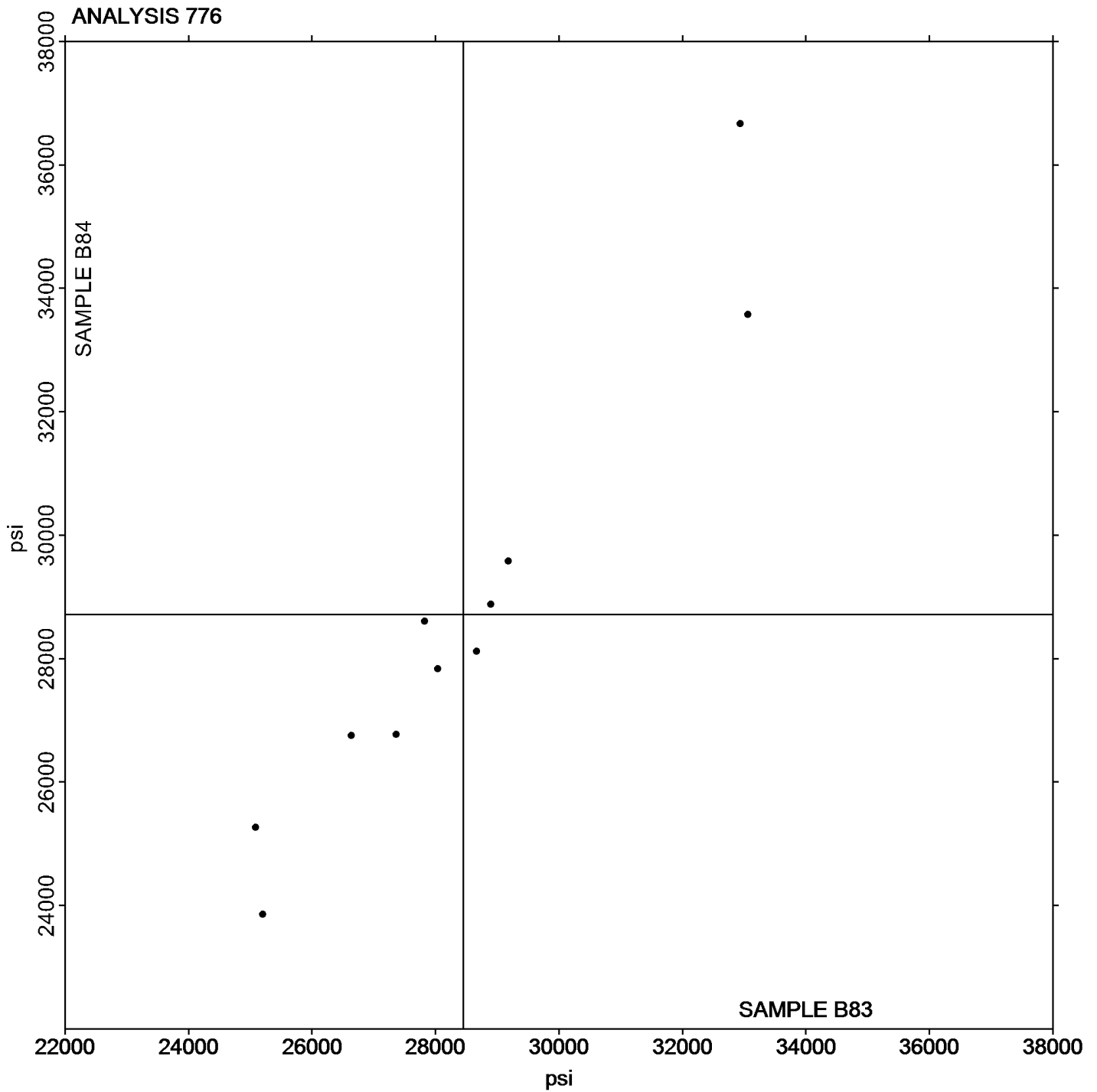
Report #122

Analysis 776

2nd Qtr 2022

Secant Modulus at 2% Strain - psi

Grand Mean Sample B83: 28,445.66 psi Grand Mean Sample B84: 28,718.33 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 #122

Analysis 780

2nd Qtr 2022

Coefficient of Static Friction

WebCode	Data Flag	Sample P83			Sample P84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		0.1056	-0.0466	-1.22	0.1348	-0.0176	-0.40	TH
8M8ZD7		0.1340	-0.0182	-0.48	0.1564	0.0040	0.09	TM
8PUGPY		0.1180	-0.0342	-0.90	0.0636	-0.0888	-2.01	LI
94W7LY		0.1360	-0.0162	-0.42	0.2020	0.0496	1.12	MS
9HTRGT		0.1564	0.0042	0.11	0.1758	0.0234	0.53	DY
B7XXMB		0.2082	0.0559	1.46	0.1676	0.0152	0.34	IG
H2DG8D		0.2094	0.0572	1.50	0.2254	0.0730	1.65	MI
H4KR8M		0.1540	0.0018	0.05	0.1460	-0.0064	-0.14	SA
L7YKCD		0.1982	0.0460	1.20	0.1856	0.0332	0.75	IG
NRQJPL		0.0894	-0.0628	-1.64	0.1144	-0.0380	-0.86	TN
PEEHM2		0.1408	-0.0114	-0.30	0.1422	-0.0102	-0.23	XX
TP78XJ		0.1910	0.0388	1.01	0.1764	0.0240	0.54	SA
XFZWQ4		0.1208	-0.0314	-0.82	0.1140	-0.0384	-0.87	RD
XU3J26		0.1358	-0.0164	-0.43	0.0880	-0.0644	-1.46	IS
YND6R6		0.1860	0.0338	0.88	0.1932	0.0408	0.92	TH

Summary Statistics		
	Sample P83	Sample P84
Grand Means	0.15224 COF	0.15236 COF
Std Dev Btwn Labs	0.03822 COF	0.04419 COF
Statistics based on 15 of 15 reporting participants		

Sample P83: LDPE & Sample P84: 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

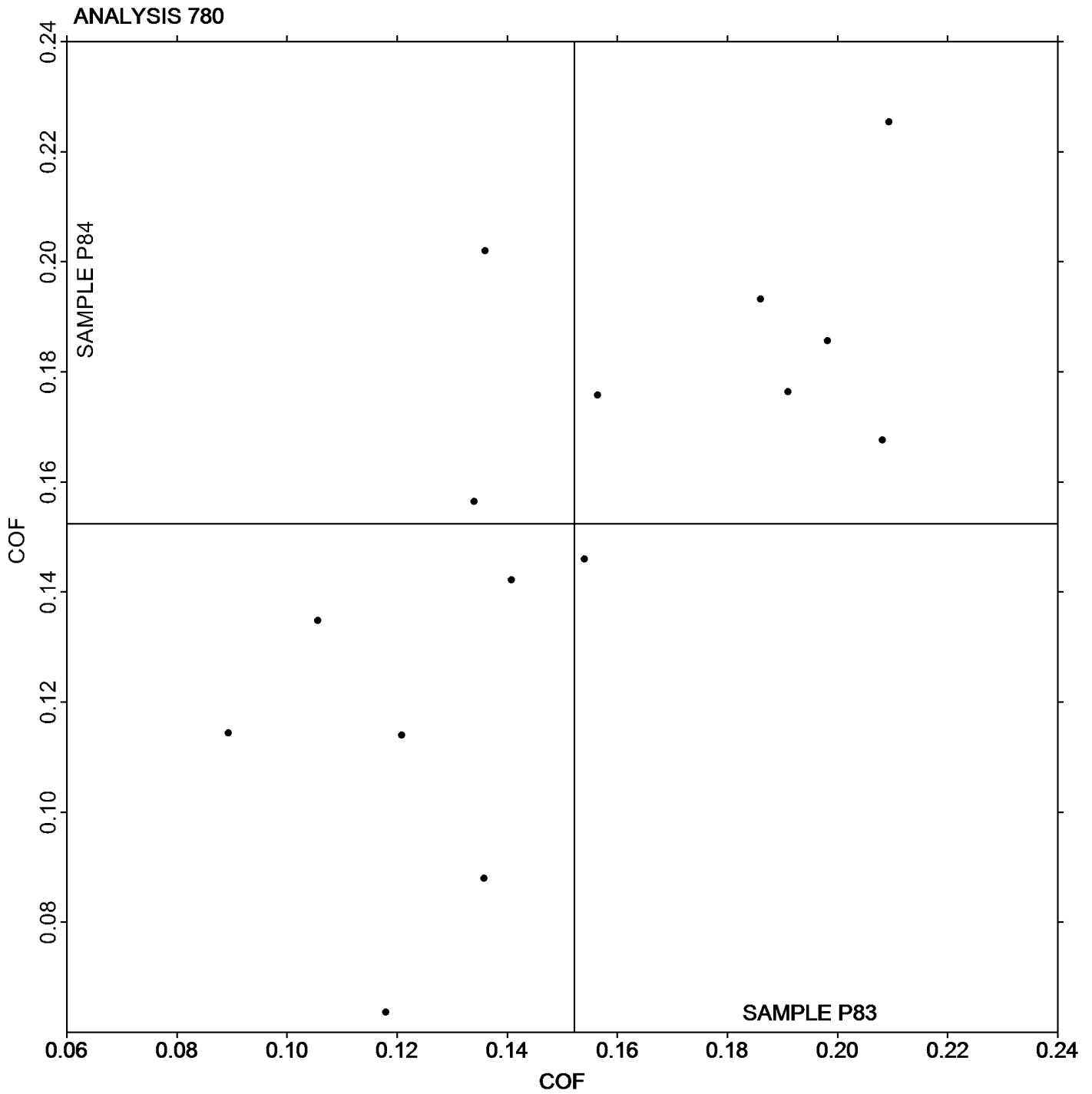
Analysis 780

Coefficient of Static Friction

Report #122

2nd Qtr 2022

Grand Mean Sample P83: 0.15224 COF Grand Mean Sample P84: 0.15236 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 #122

Analysis 781

2nd Qtr 2022

Coefficient of Kinetic Friction

WebCode	Data Flag	Sample P83			Sample P84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		0.0938	0.0067	0.26	0.1056	0.0087	0.21	TH
8M8ZD7		0.0888	0.0017	0.07	0.0970	0.0001	0.00	TM
8PUGPY		0.0474	-0.0397	-1.55	0.0304	-0.0665	-1.60	XX
94W7LY	*	0.1060	0.0189	0.73	0.2020	0.1051	2.53	MS
9HTRGT		0.0850	-0.0021	-0.08	0.1094	0.0125	0.30	DY
B7XXMB		0.1087	0.0216	0.84	0.1007	0.0038	0.09	IG
H2DG8D		0.0858	-0.0013	-0.05	0.0824	-0.0145	-0.35	MI
H4KR8M		0.0860	-0.0011	-0.04	0.0720	-0.0249	-0.60	SA
L7YKCD		0.1366	0.0495	1.93	0.1448	0.0479	1.15	IG
NRQJPL		0.0518	-0.0353	-1.37	0.0720	-0.0249	-0.60	TN
PEEHM2		0.1098	0.0227	0.88	0.1290	0.0321	0.77	XX
TP78XJ		0.0814	-0.0057	-0.22	0.0826	-0.0143	-0.34	SA
XFZWQ4		0.1120	0.0249	0.97	0.1052	0.0083	0.20	RD
XU3J26		0.0502	-0.0369	-1.44	0.0404	-0.0565	-1.36	IS
YND6R6		0.0634	-0.0237	-0.92	0.0802	-0.0167	-0.40	TH

Summary Statistics

	Sample P83	Sample P84
Grand Means	0.08712 COF	0.09692 COF
Std Dev Btwn Labs	0.02570 COF	0.04161 COF

Statistics based on 15 of 15 reporting participants

Sample P83: LDPE & Sample P84: 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

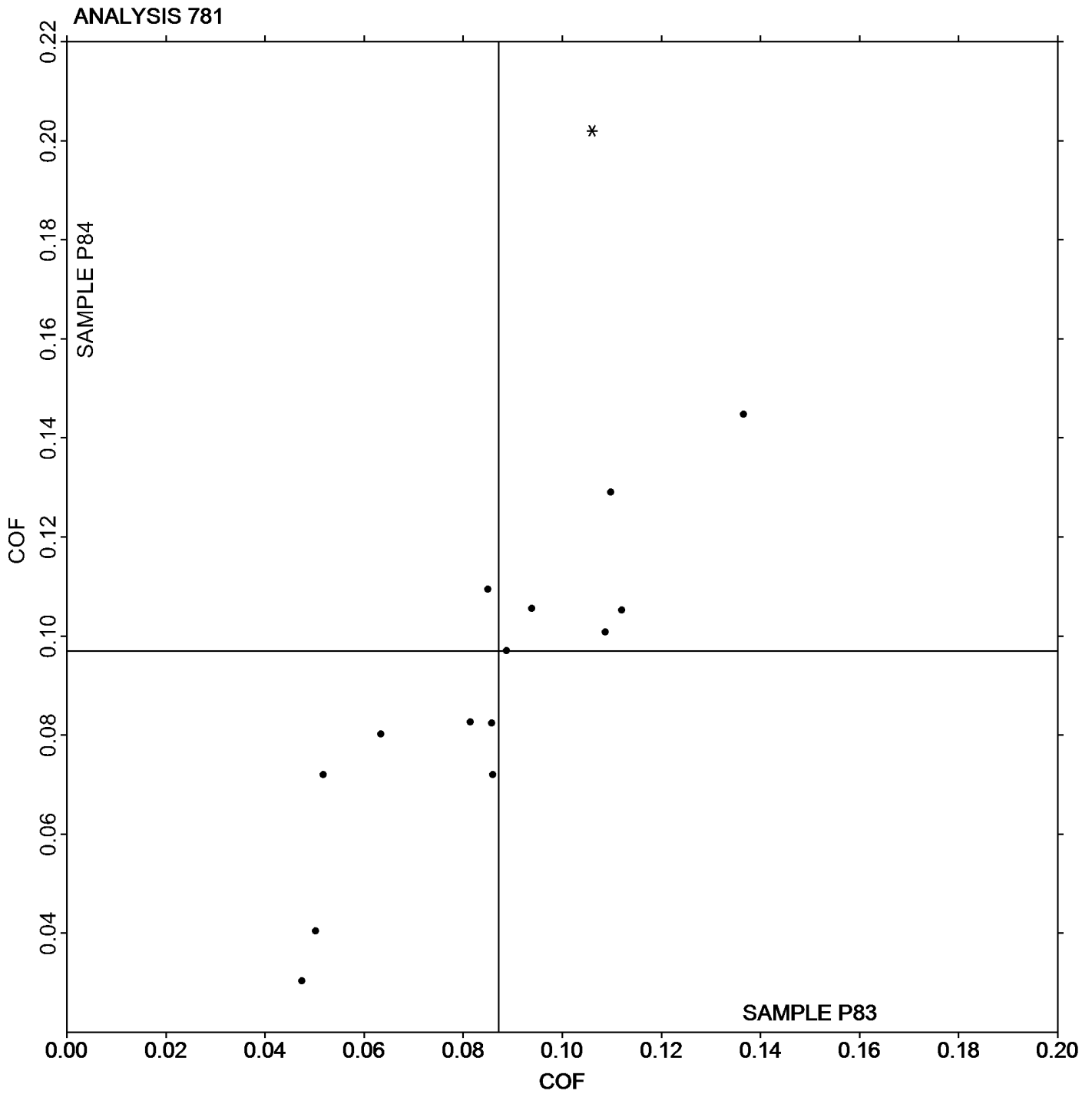
Analysis 781

Coefficient of Kinetic Friction

Report #122

2nd Qtr 2022

Grand Mean Sample P83: 0.08712 COF Grand Mean Sample P84: 0.09692 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 #122

Analysis 782

2nd Qtr 2022

Tear Resistance of Films

WebCode	Data Flag	Sample Q83			Sample Q84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		212.2	-99.6	-2.15	241.3	11.2	0.43	TE
8M8ZD7		296.5	-15.3	-0.33	213.8	-16.3	-0.62	TM
94W7LY		348.5	36.7	0.79	240.4	10.3	0.39	EM
9HTRGT		345.0	33.2	0.72	206.7	-23.4	-0.89	TA
GAQ688		371.1	59.3	1.28	194.7	-35.4	-1.35	SZ
H2DG8D		319.6	7.8	0.17	266.5	36.4	1.39	TE
H4KR8M		318.2	6.4	0.14	206.4	-23.7	-0.90	LO
PDMNMC		315.0	3.2	0.07	235.2	5.1	0.19	TA
TP78XJ		280.2	-31.6	-0.68	266.2	36.0	1.37	TE

Summary Statistics

	Sample Q83	Sample Q84
Grand Means	311.80 grams-force	230.12 grams-force
Stnd Dev Btwn Labs	46.42 grams-force	26.24 grams-force

Statistics based on 9 of 9 reporting participants

Sample Q83: LDPE & Sample Q84: 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

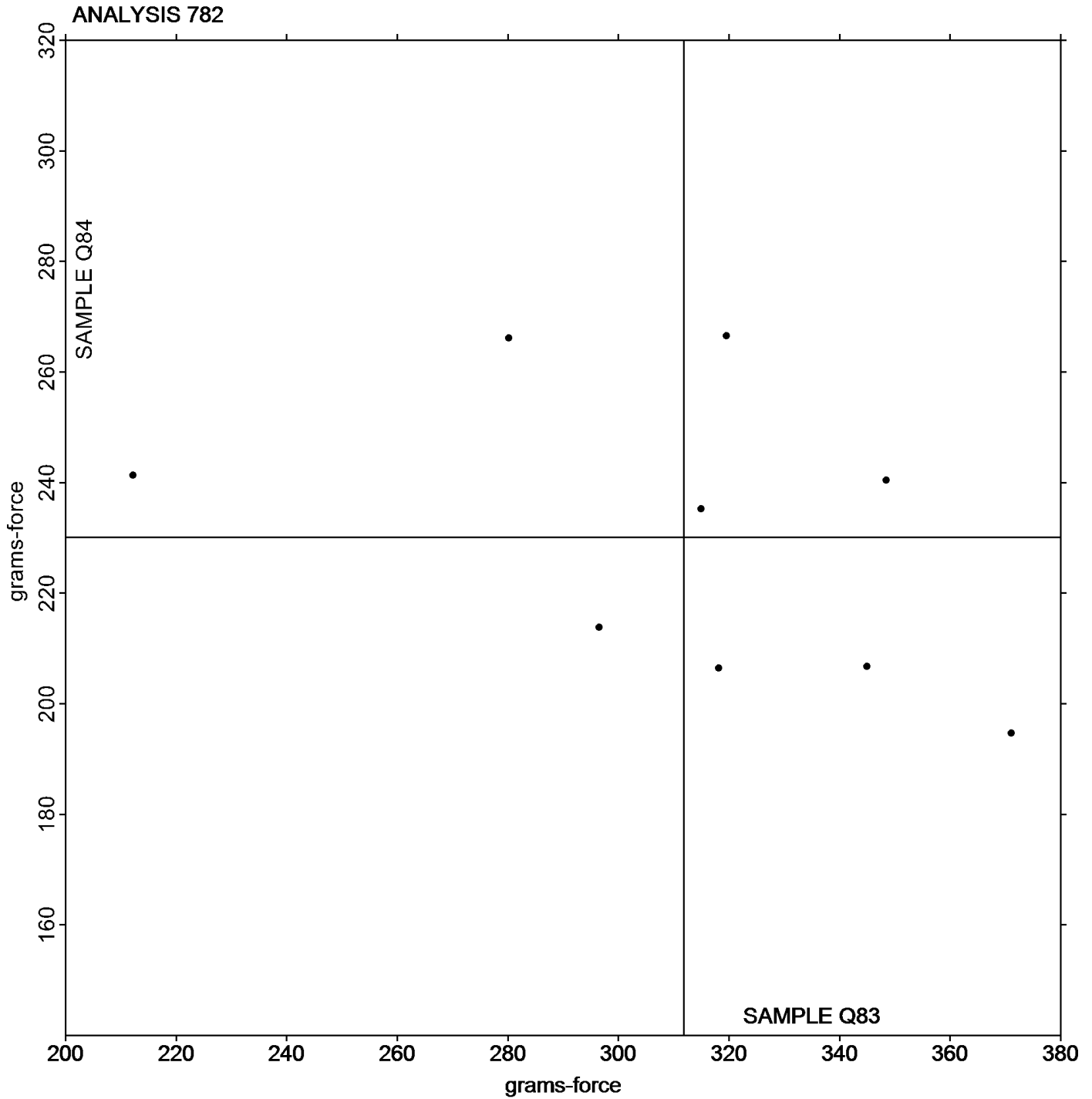
Report #122

Analysis 782

2nd Qtr 2022

Tear Resistance of Films

Grand Mean Sample Q83: 311.80 grams-force Grand Mean Sample Q84: 230.12 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 #122

Analysis 785

2nd Qtr 2022

Percent Haze of Film

WebCode	Data Flag	Sample D83			Sample D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		25.263	0.193	0.20	24.325	0.389	0.38	BJ
4GY4HW	*	22.413	-2.657	-2.69	21.465	-2.471	-2.39	HL
6VCZWW		25.200	0.130	0.13	24.113	0.176	0.17	BJ
8M8ZD7	*	24.975	-0.095	-0.10	26.225	2.289	2.21	BJ
8PX4ZL		24.900	-0.170	-0.17	23.650	-0.286	-0.28	BJ
94W7LY		24.450	-0.620	-0.63	23.941	0.005	0.00	BJ
9HTRGT		26.279	1.209	1.22	24.646	0.710	0.69	XR
AGFEEH		23.828	-1.242	-1.26	22.218	-1.719	-1.66	XX
B2DC6N		24.463	-0.607	-0.61	23.213	-0.724	-0.70	BJ
BPQRD2		25.350	0.280	0.28	24.063	0.126	0.12	BJ
BPQWQN		27.039	1.969	1.99	24.635	0.699	0.68	XR
EVKXMK		26.158	1.088	1.10	24.474	0.537	0.52	XR
G9Y2QT		26.113	1.043	1.06	23.125	-0.811	-0.78	BJ
GAQ688		25.563	0.493	0.50	23.575	-0.361	-0.35	BJ
GMEAF4		22.950	-2.120	-2.14	21.775	-2.161	-2.09	HL
H2DG8D		25.375	0.305	0.31	24.175	0.239	0.23	BJ
JPYW8G		25.150	0.080	0.08	25.213	1.276	1.23	BJ
MDA9NQ		24.043	-1.027	-1.04	23.123	-0.814	-0.79	HL
Q68ZTA		24.825	-0.245	-0.25	23.918	-0.019	-0.02	BJ
TP78XJ		25.850	0.780	0.79	24.238	0.301	0.29	BJ
UBK8MB		24.875	-0.195	-0.20	23.413	-0.524	-0.51	BJ
WHUKAY		24.938	-0.132	-0.13	24.694	0.757	0.73	BJ
WTCV76		25.513	0.443	0.45	24.811	0.875	0.85	XR
XU3J26		25.513	0.443	0.45	24.563	0.626	0.61	BJ
YND6R6		25.575	0.505	0.51	24.563	0.626	0.61	BJ
ZT6UPN		25.213	0.143	0.14	24.200	0.264	0.25	BJ

Summary Statistics		
	Sample D83	Sample D84
Grand Means	25.0695 Percent	23.9365 Percent
Stnd Dev Btwn Labs	0.9883 Percent	1.0344 Percent
Statistics based on 26 of 26 reporting participants		

Sample D83: LDPE & Sample D84: LDPE



Plastics Interlaboratory Testing Program

Analysis 785

Percent Haze of Film

Report #122

2nd Qtr 2022

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

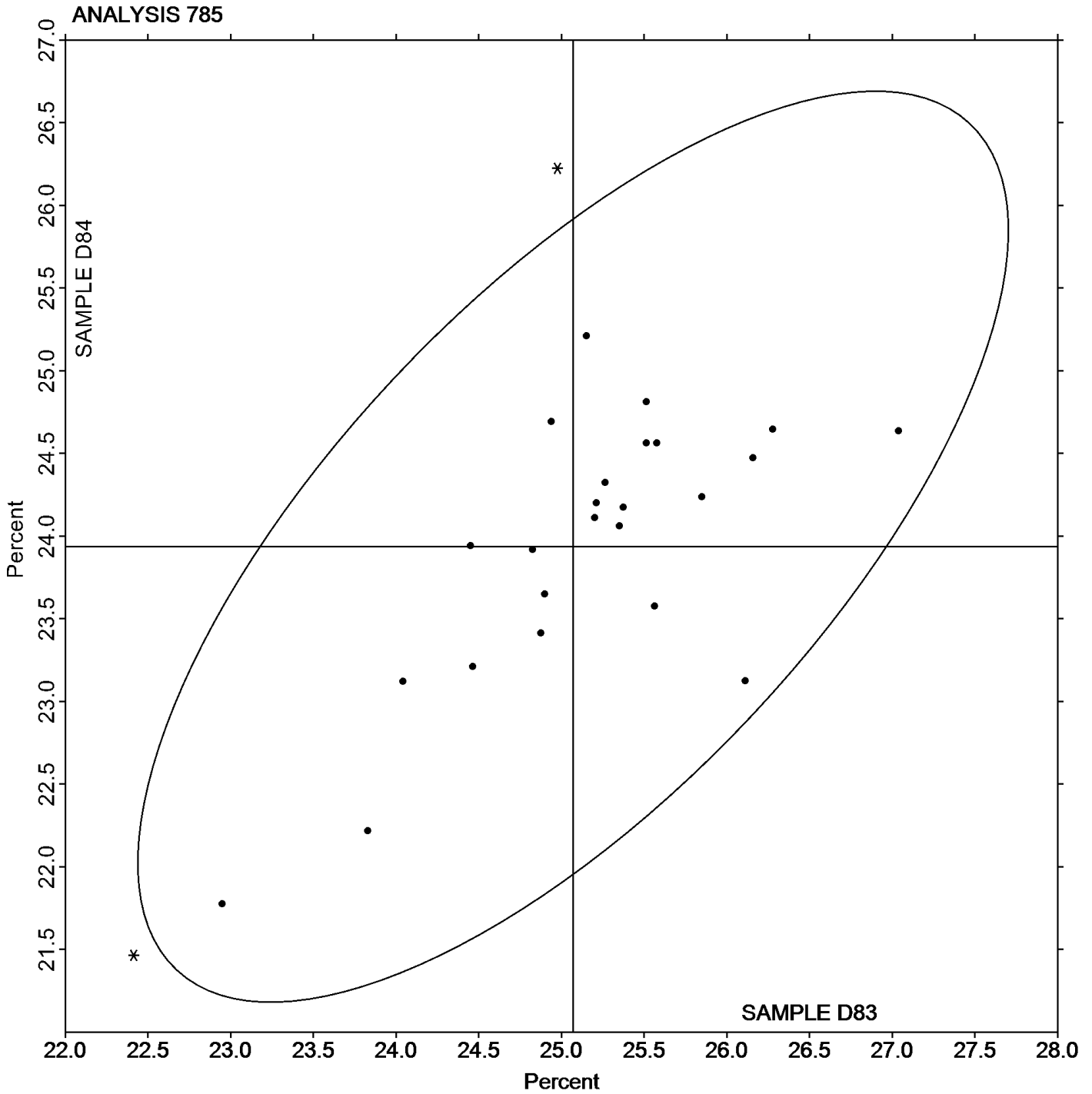
Analysis 785

Percent Haze of Film

Report #122

2nd Qtr 2022

Grand Mean Sample D83: 25.070 Percent Grand Mean Sample D84: 23.936 Percent





Plastics Interlaboratory Testing Program

Report #122

Analysis 786

2nd Qtr 2022

Total Luminous transmittance of film

WebCode	Data Flag	Sample D83			Sample D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
426DMZ		90.59	-1.99	-1.64	90.46	-2.20	-1.76	BJ
4GY4HW		90.55	-2.03	-1.67	90.63	-2.03	-1.63	HL
6VCZWW		92.61	0.03	0.03	92.70	0.04	0.03	BJ
8M8ZD7		93.13	0.54	0.45	93.10	0.44	0.35	BJ
8PX4ZL		93.66	1.08	0.89	93.68	1.02	0.82	BJ
94W7LY		93.75	1.17	0.96	93.65	0.99	0.80	BJ
AGFEEH	*	91.81	-0.77	-0.63	91.29	-1.37	-1.10	XX
B2DC6N		93.34	0.76	0.62	93.45	0.79	0.63	BJ
BPQRD2		92.59	0.01	0.01	92.71	0.05	0.04	BJ
BPQWQN		91.66	-0.92	-0.76	91.82	-0.84	-0.67	XR
EVKXMK		92.22	-0.36	-0.29	92.28	-0.38	-0.30	XR
G9Y2QT		93.98	1.39	1.15	94.20	1.54	1.24	BJ
GAQ688		91.40	-1.18	-0.97	91.85	-0.81	-0.65	BJ
GMEAF4		90.08	-2.51	-2.06	90.34	-2.32	-1.86	HL
H2DG8D		93.53	0.94	0.78	93.66	1.00	0.81	BJ
JPYW8G		93.16	0.58	0.48	93.41	0.75	0.60	BJ
MDA9NQ		90.40	-2.18	-1.79	90.33	-2.33	-1.87	HL
Q68ZTA		93.19	0.61	0.50	93.33	0.67	0.53	BJ
TP78XJ		92.48	-0.11	-0.09	92.44	-0.22	-0.18	BJ
UBK8MB		93.33	0.74	0.61	93.49	0.83	0.66	BJ
WHUKAY		93.70	1.12	0.92	93.90	1.24	1.00	BJ
WTCV76		92.30	-0.28	-0.23	92.37	-0.29	-0.23	XR
XU3J26		94.44	1.86	1.53	94.43	1.77	1.42	BJ
YND6R6		93.50	0.92	0.76	93.56	0.90	0.73	BJ
ZT6UPN		93.14	0.56	0.46	93.41	0.75	0.60	BJ

Summary Statistics		
	Sample D83	Sample D84
Grand Means	92.580 Percent	92.659 Percent
Stnd Dev Btwn Labs	1.217 Percent	1.246 Percent
Statistics based on 25 of 25 reporting participants		

Sample D83: LDPE & Sample D84: LDPE



Plastics Interlaboratory Testing Program

Report #122

Analysis 786

2nd Qtr 2022

Total Luminous transmittance of film

Key to Instrument Codes Reported by Participants

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

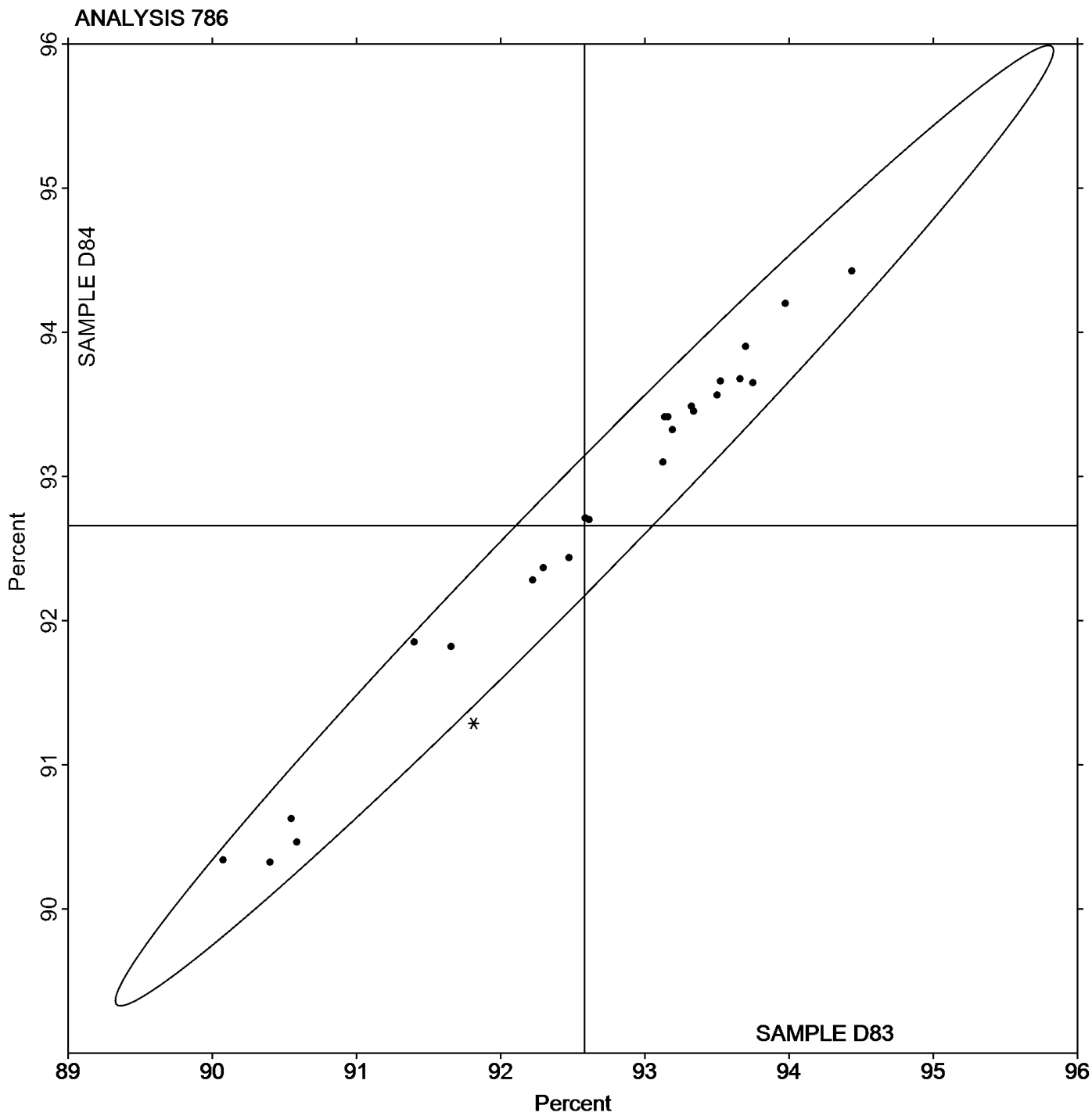
Analysis 786

Total Luminous transmittance of film

Report #122

2nd Qtr 2022

Grand Mean Sample D83: 92.580 Percent Grand Mean Sample D84: 92.659 Percent





Plastics Interlaboratory Testing Program

Report #122

Analysis 790

2nd Qtr 2022

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S83			Sample S84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RWTFX		1.99	0.06	0.37	1.92	0.00	-0.02	TM
426DMZ		1.97	0.04	0.26	1.93	0.01	0.09	CE
4GY4HW	*	2.13	0.20	1.26	2.23	0.31	2.18	TO
4HRY67		1.79	-0.14	-0.90	1.84	-0.08	-0.56	TM
4JMH88		1.99	0.06	0.35	1.88	-0.04	-0.28	WZ
4ZQCD7		1.88	-0.05	-0.33	1.89	-0.03	-0.20	WZ
6ENP89		1.95	0.02	0.10	1.98	0.06	0.45	TO
6VCZWW		1.83	-0.10	-0.67	1.77	-0.15	-1.06	CE
7K93RT		1.81	-0.12	-0.75	1.82	-0.10	-0.71	TO
99RV6R		2.29	0.36	2.28	2.25	0.33	2.36	TO
9U4XUG		1.92	-0.01	-0.07	1.98	0.06	0.40	XX
AC2G8V		2.00	0.07	0.47	2.05	0.13	0.93	TM
BF24JY		1.93	0.00	-0.03	1.92	0.00	0.02	XX
BMGUZJ		1.90	-0.04	-0.23	1.82	-0.10	-0.69	TO
BPQRD2		2.02	0.09	0.58	2.04	0.12	0.84	TM
BT6NLN		1.87	-0.06	-0.38	1.85	-0.08	-0.53	TO
DA2PGT		2.20	0.27	1.73	2.09	0.17	1.19	TO
DLGMCN	*	2.35	0.42	2.67	2.27	0.35	2.46	XX
EUNKZR		1.85	-0.08	-0.52	1.81	-0.11	-0.79	TO
G6HPYH	*	2.12	0.19	1.19	1.92	0.00	0.00	DS
H2DG8D	X	2.14	0.21	1.34	1.85	-0.07	-0.51	TO
H2F23T		1.80	-0.13	-0.85	1.79	-0.13	-0.93	TO
JWG92A		1.77	-0.16	-1.00	1.74	-0.18	-1.28	WZ
MMVEE3		1.82	-0.11	-0.68	1.88	-0.04	-0.31	WZ
NRQJPL	X	0.25	-1.68	-10.75	0.25	-1.67	-11.85	TM
P3HLE8		1.77	-0.16	-1.06	1.71	-0.22	-1.52	TM
PDMNMC		1.90	-0.03	-0.19	1.90	-0.02	-0.16	TM
PFPMX6	X	3.13	1.20	7.70	2.84	0.92	6.51	TO
PVLQFA		1.80	-0.13	-0.86	1.81	-0.11	-0.76	TO
RF2XQU		1.97	0.04	0.23	1.97	0.05	0.32	CE
TGU7HA		1.79	-0.14	-0.90	1.89	-0.03	-0.23	XX
UAQJ4F		1.86	-0.07	-0.45	1.90	-0.02	-0.15	TO
VEY6RC		2.18	0.25	1.60	2.04	0.12	0.87	TO
VMC4FV		2.10	0.17	1.11	2.10	0.18	1.28	WZ
VVLMG8		2.12	0.19	1.19	2.09	0.17	1.17	CE



Plastics Interlaboratory Testing Program

Report #122

Analysis 790

2nd Qtr 2022

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S83			Sample S84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
WM79AV		1.74	-0.19	-1.21	1.74	-0.18	-1.27	CS
XWP2YW		1.83	-0.10	-0.66	1.86	-0.06	-0.42	CE
XXZ4KV		1.90	-0.03	-0.22	1.90	-0.03	-0.18	TM
XZ8GBA		1.81	-0.12	-0.75	1.82	-0.10	-0.72	TO
YDQBDM		1.74	-0.19	-1.25	1.77	-0.16	-1.10	TO
YND6R6		1.72	-0.22	-1.38	1.75	-0.18	-1.24	TO
YRUQKC		1.92	-0.01	-0.07	2.00	0.08	0.56	BA
Z3RTHE	X	1.96	0.03	0.20	2.18	0.26	1.83	TO

Summary Statistics		
	Sample S83	Sample S84
Grand Means	1.931 ft.lbf/in	1.921 ft.lbf/in
Std Dev Btwn Labs	0.156 ft.lbf/in	0.141 ft.lbf/in
Statistics based on 39 of 43 reporting participants		

Sample S83: HIPS & Sample S84: HIPS

Comments on Assigned Data Flags for Test #790

- NRQJPL (X) - Data for both samples are low.
- H2DG8D (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- PFPMX6 (X) - Data for both samples are high. Possible Systematic Error.
- Z3RTHE (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

Key to Instrument Codes Reported by Participants

BA	Baldwin	CE	Ceast
CS	CSI	DS	Dynisco
TM	TMI	TO	Tinius Olsen
WZ	Zwick	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

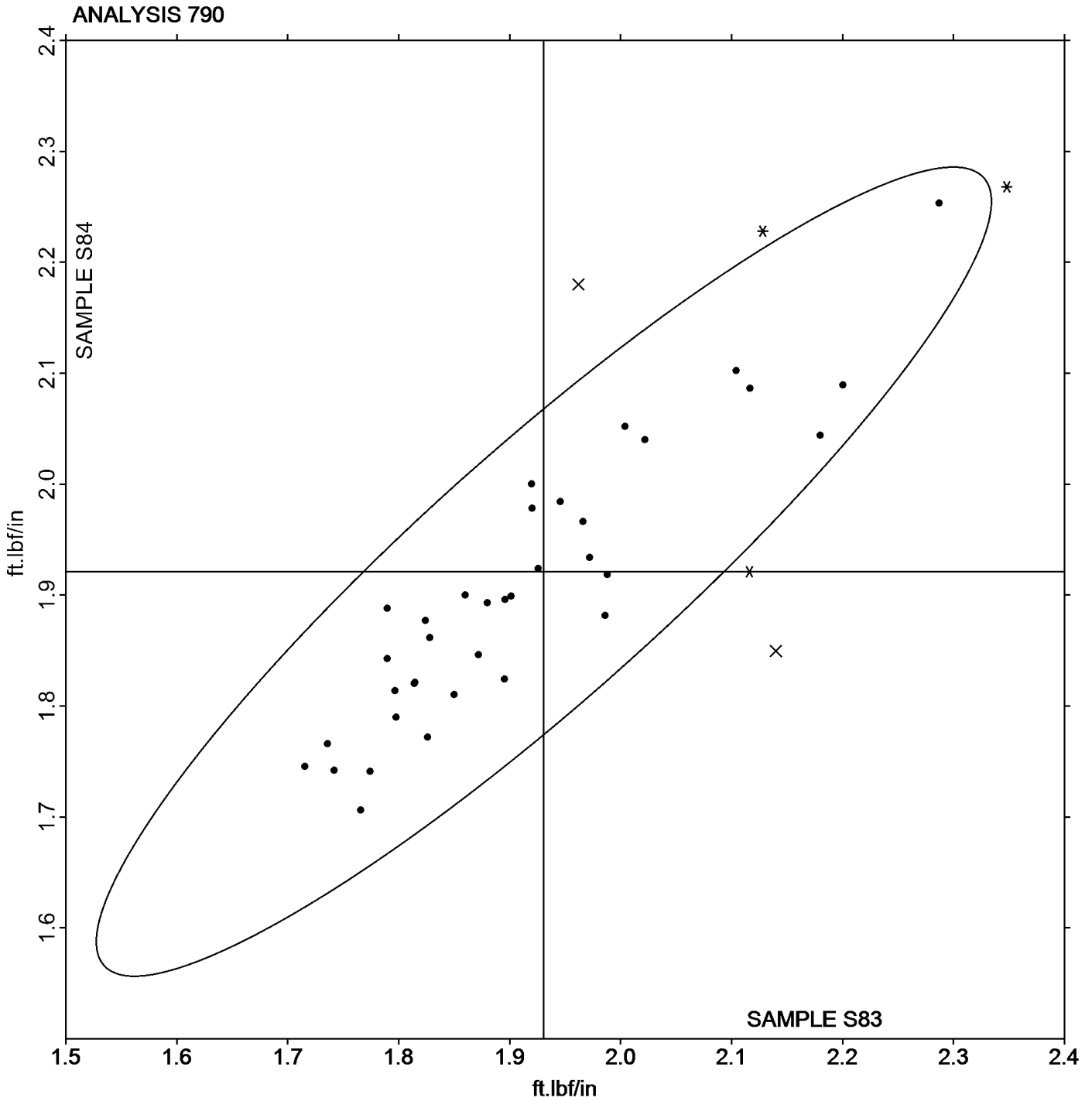
Analysis 790

Notched Izod Impact - ft.lbf/in

Report #122

2nd Qtr 2022

Grand Mean Sample S83: 1.9308 ft.lbf/in Grand Mean Sample S84: 1.9211 ft.lbf/in





Plastics Interlaboratory Testing Program

Report #122

Analysis 791

2nd Qtr 2022

Notched Izod Impact - kJ/m²

WebCode	Data Flag	Sample Z83			Sample Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RUUR		44.55	-1.49	-0.29	43.44	-2.16	-0.46	WZ
426DMZ		34.98	-11.07	-2.18	35.06	-10.54	-2.27	CE
4B9T9Y		45.53	-0.51	-0.10	46.26	0.67	0.14	XX
4JMH88		43.28	-2.77	-0.54	42.28	-3.31	-0.71	WZ
4ZQCD7		45.30	-0.74	-0.15	44.99	-0.61	-0.13	WZ
7MCVK7		43.06	-2.99	-0.59	43.87	-1.73	-0.37	CE
83J9MW		48.49	2.45	0.48	48.83	3.23	0.70	TO
8WEKTV		44.45	-1.59	-0.31	44.36	-1.23	-0.27	TM
9U4XUG		44.08	-1.96	-0.39	43.16	-2.43	-0.52	XX
DFAYYM		47.15	1.10	0.22	48.36	2.76	0.59	TM
DMD24M		49.06	3.02	0.59	49.95	4.36	0.94	CE
FGXAML		44.77	-1.27	-0.25	44.37	-1.23	-0.26	TO
G9JTQ6		50.06	4.02	0.79	50.52	4.93	1.06	XX
H2DG8D		48.65	2.60	0.51	47.54	1.94	0.42	XX
HGKJKR		42.60	-3.44	-0.68	43.00	-2.59	-0.56	CE
JLWV7K		44.58	-1.47	-0.29	42.96	-2.63	-0.57	CE
MDA9NQ		40.00	-6.04	-1.19	39.94	-5.65	-1.22	TM
QRWUD2		38.02	-8.02	-1.58	37.76	-7.84	-1.69	CE
RAFXG9		48.47	2.43	0.48	46.53	0.94	0.20	CE
TGU7HA		43.84	-2.20	-0.43	43.92	-1.67	-0.36	XX
THL36H		47.84	1.80	0.35	47.91	2.31	0.50	CE
UAPUVC		46.90	0.86	0.17	46.64	1.05	0.23	CE
VBZNG4		51.21	5.16	1.02	51.23	5.63	1.21	CE
VD4QZD	*	62.73	16.68	3.28	59.91	14.31	3.08	TO
VUE7MH		46.42	0.38	0.07	48.68	3.09	0.66	TO
W4VEGN		46.05	0.01	0.00	44.55	-1.04	-0.22	TO
XZUQKE	*	55.94	9.90	1.95	51.62	6.03	1.30	TO
YND6R6		41.27	-4.78	-0.94	41.64	-3.95	-0.85	TO
ZJQ8EY		44.78	-1.27	-0.25	43.72	-1.88	-0.40	WZ
ZL233C		47.28	1.23	0.24	44.84	-0.75	-0.16	CE



Plastics Interlaboratory Testing Program

Report #122

Analysis 791

2nd Qtr 2022

Notched Izod Impact - kJ/m²

Summary Statistics		
	<u>Sample Z83</u>	<u>Sample Z84</u>
Grand Means	46.045 kJ/m ²	45.594 kJ/m ²
Stnd Dev Btwn Labs	5.078 kJ/m ²	4.642 kJ/m ²
Statistics based on 30 of 30 reporting participants		

Sample Z83: ABS/PC & Sample Z84: ABS/PC

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

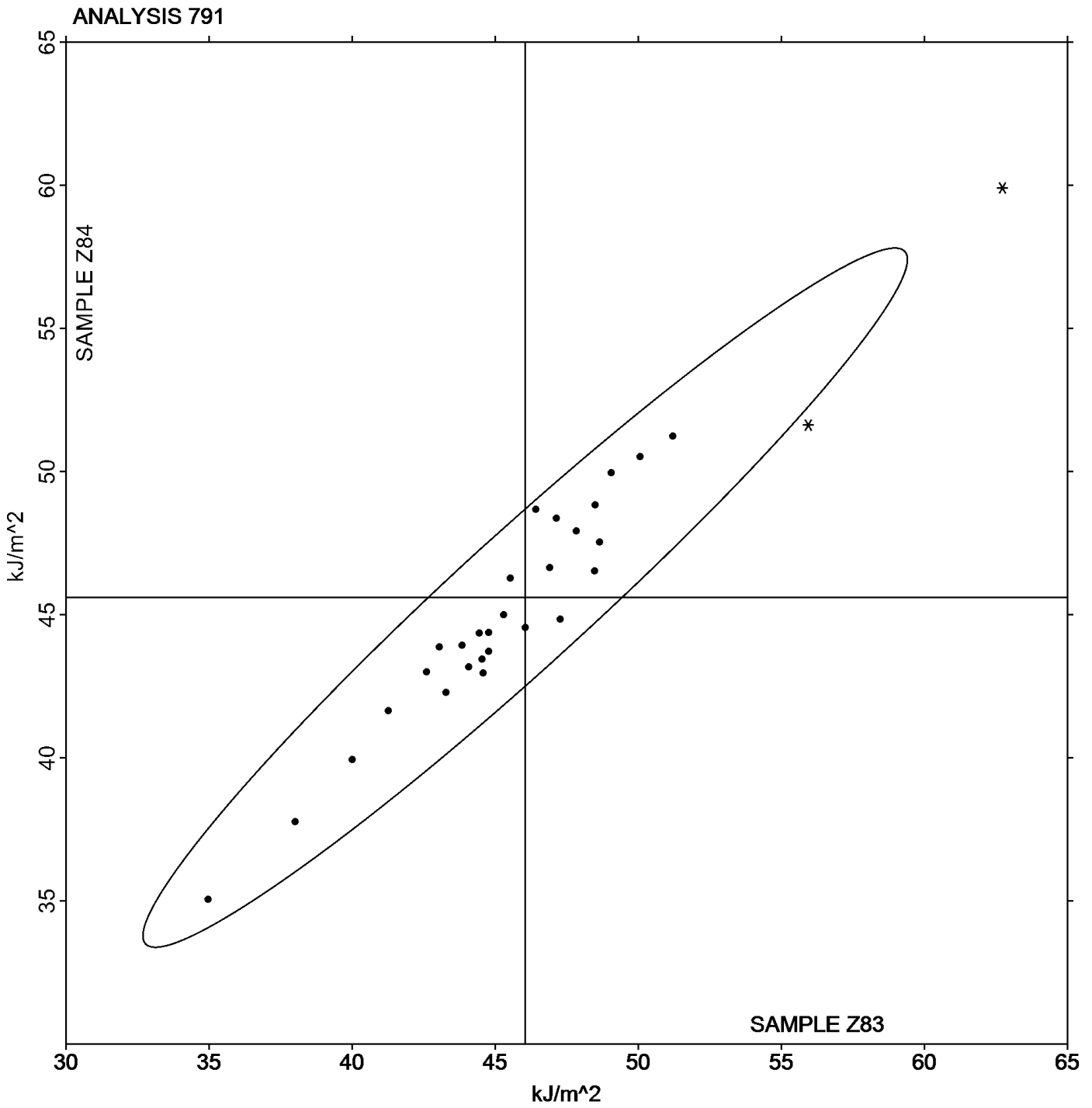
Analysis 791

Notched Izod Impact - kJ/m^2

Report #122

2nd Qtr 2022

Grand Mean Sample Z83: 46.045 kJ/m^2 Grand Mean Sample Z84: 45.594 kJ/m^2





Plastics Interlaboratory Testing Program

Report #122

Analysis 792

2nd Qtr 2022

Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M83			Sample M84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RUUR	*	56.94	6.21	1.29	48.89	-1.64	-0.36	WZ
3PULJZ		45.16	-5.57	-1.15	45.22	-5.30	-1.16	CE
426DMZ		52.36	1.64	0.34	53.04	2.51	0.55	CE
4B9T9Y		51.73	1.01	0.21	50.95	0.42	0.09	TM
4JMH88		46.43	-4.29	-0.89	46.68	-3.85	-0.84	WZ
4ZQCD7		56.57	5.85	1.21	52.74	2.21	0.48	WZ
7MCVK7		50.89	0.16	0.03	50.53	0.00	0.00	CE
83J9MW		57.50	6.78	1.40	51.60	1.08	0.23	TO
94W7LY		53.08	2.36	0.49	53.62	3.09	0.67	CE
99RV6R		61.01	10.29	2.13	58.73	8.21	1.79	TO
9U4XUG		44.60	-6.12	-1.27	47.24	-3.29	-0.72	XX
AVUH2D		54.22	3.49	0.72	47.74	-2.79	-0.61	PO
AYUUWD		50.38	-0.34	-0.07	50.92	0.39	0.08	TO
BPQRD2		52.88	2.16	0.45	57.10	6.57	1.43	TM
CGLGEL		45.13	-5.59	-1.16	46.09	-4.44	-0.97	WZ
DLGMCN		45.63	-5.10	-1.05	51.62	1.10	0.24	XX
F7UYDB		51.34	0.62	0.13	53.66	3.13	0.68	CE
FGXAML		47.53	-3.20	-0.66	46.83	-3.69	-0.80	TO
G9JTQ6		47.21	-3.51	-0.73	47.77	-2.76	-0.60	WZ
H2DG8D		57.37	6.64	1.37	53.37	2.84	0.62	XX
H2F23T		47.15	-3.57	-0.74	46.56	-3.97	-0.86	TO
H68GZE		49.64	-1.08	-0.22	49.82	-0.71	-0.15	WZ
HGKJKR		44.78	-5.94	-1.23	44.52	-6.01	-1.31	CE
JLWV7K		51.32	0.60	0.12	53.20	2.67	0.58	CE
JWG92A		45.96	-4.77	-0.99	45.70	-4.82	-1.05	WZ
MDA9NQ		46.12	-4.60	-0.95	46.10	-4.42	-0.96	TM
QRWUD2		43.48	-7.24	-1.50	46.48	-4.05	-0.88	CE
QXRGDG		50.10	-0.62	-0.13	49.00	-1.53	-0.33	TO
R9JGBD		51.30	0.57	0.12	50.61	0.09	0.02	CE
RAFXG9		51.89	1.17	0.24	50.95	0.42	0.09	IN
RF2XQU		53.42	2.70	0.56	53.79	3.26	0.71	IN
TGU7HA		48.68	-2.04	-0.42	49.42	-1.11	-0.24	XX
UAPUVC		53.68	2.96	0.61	51.40	0.87	0.19	CE
V37QJ3		54.01	3.29	0.68	53.98	3.45	0.75	WZ
VBZNG4	X	71.12	20.40	4.22	67.48	16.95	3.69	CE



Plastics Interlaboratory Testing Program

Report #122

Analysis 792

2nd Qtr 2022

Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M83			Sample M84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
VG6MQ9		47.42	-3.30	-0.68	45.20	-5.33	-1.16	TO
VUE7MH	*	63.64	12.92	2.67	64.82	14.29	3.11	TO
W34BV9	*	57.00	6.28	1.30	61.66	11.13	2.43	TO
W4VEGN		55.93	5.21	1.08	55.47	4.94	1.08	TO
XL8K7Q		41.72	-9.00	-1.86	41.31	-9.22	-2.01	XX
XZUQKE		51.00	0.28	0.06	49.64	-0.89	-0.19	TO
YND6R6		51.91	1.19	0.25	52.18	1.65	0.36	TO
ZJQ8EY		45.01	-5.71	-1.18	45.24	-5.29	-1.15	WZ
ZL233C		50.10	-0.62	-0.13	52.53	2.00	0.44	CE
ZNQ9TA		48.55	-2.17	-0.45	49.32	-1.21	-0.26	WZ

Summary Statistics		
	Sample M83	Sample M84
Grand Means	50.722 kJ/m ²	50.528 kJ/m ²
Std Dev Btwn Labs	4.836 kJ/m ²	4.589 kJ/m ²
Statistics based on 44 of 45 reporting participants		

Sample M83: ABS/PC & Sample M84: ABS/PC

Comments on Assigned Data Flags for Test #792

VBZNG4 (X) - Data for both samples are high. Possible Systematic Error.

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

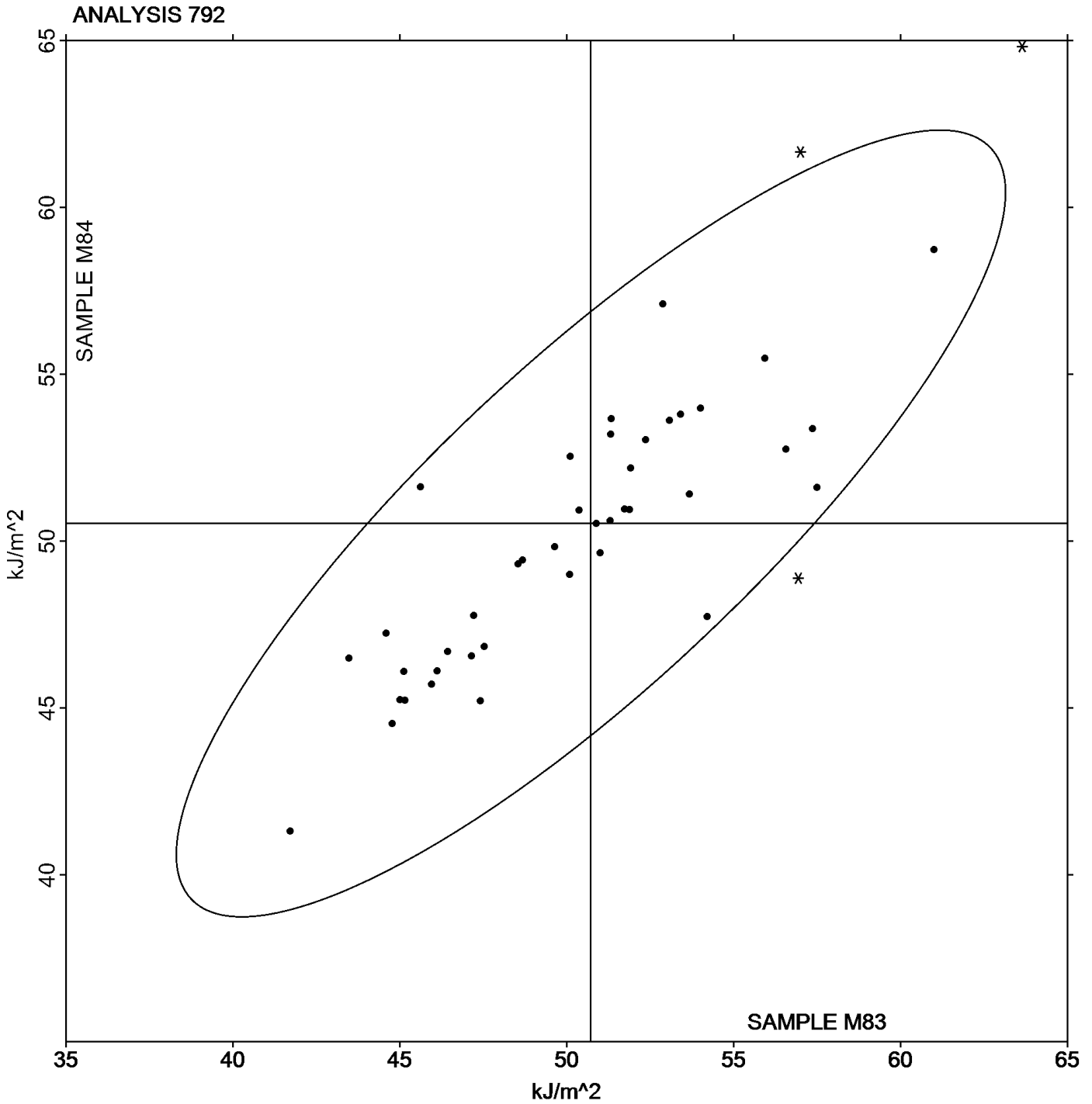
Analysis 792

Notched Charpy Impact - kJ/m^2

Report #122

2nd Qtr 2022

Grand Mean Sample M83: 50.722 kJ/m^2 Grand Mean Sample M84: 50.528 kJ/m^2



-End of Report-