

Plastics Interlaboratory Testing Program

Web Summary Report #118, 2nd Qtr 2021

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About CTS and the Plastics Interlaboratory Program

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color 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.

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Key for Web Summary Report (Page 1 of 2)

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

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

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

Common Problems Highlighted in Footnotes

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

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



Plastics Interlaboratory Testing Program

Results Summary for Report #118, 2nd Qtr 2021

Analysis 704 - Tensile Stress at Yield

Material: ABS/PC	Sample F75	7,318.40	psi	2.10% COV
	Sample F76	7,306.41	psi	2.08% COV

Analysis 705 - Tensile Stress at Break

Material: ABS/PC	Sample F75	6,502.49	psi	4.64% COV
	Sample F76	6,527.30	psi	4.97% COV

Analysis 706 - Percent Elongation at Yield

Material: ABS/PC	Sample F75	4.5892	Percent	4.49% COV
	Sample F76	4.5493	Percent	4.30% COV

Analysis 708 - Modulus of Elasticity

Material: ABS/PC	Sample F75	331.38	ksi	5.55% COV
	Sample F76	330.67	ksi	5.44% COV

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

Material: HIPS	Sample E75	78.753	Degrees C	1.06% COV
	Sample E76	78.702	Degrees C	0.963% COV

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

Material: PP	Sample G75	113.57	Degrees C	4.23% COV
	Sample G76	113.91	Degrees C	3.40% COV

Analysis 712 - Temperature of Deflection (1.80 MPa)

Material: ABS	Sample N75	81.526	Degrees C	1.21% COV
	Sample N76	81.539	Degrees C	1.20% COV

Analysis 715 - Vicat Temperature (Rate A)

Material: ABS	Sample H75	104.17	Degrees C	0.806% COV
	Sample H76	104.22	Degrees C	0.785% COV

Analysis 716 - Vicat Temperature (Rate B)

Material: ABS	Sample R75	106.08	Degrees C	1.05% COV
	Sample R76	105.94	Degrees C	0.997% COV

Analysis 718 - Specific Gravity

Material: ABS/PC	Sample T75	1.1390	sp gr 23/23 C	0.205% COV
	Sample T76	1.1392	sp gr 23/23 C	0.209% COV

Analysis 720 - Flexural Modulus

Material: ABS/PC	Sample J75	346.48	ksi	4.85% COV
	Sample J76	346.55	ksi	4.71% COV

Analysis 721 - Flexural Stress at 5% Strain

Material: ABS/PC	Sample J75	12,019.59	psi	3.93% COV
	Sample J76	12,025.44	psi	3.82% COV

Analysis 722 - Flexural Stress at Yield

Material: ABS/PC	Sample J75	12,165.94	psi	4.32% COV
	Sample J76	12,151.60	psi	4.40% COV

Analysis 730 - Tensile Stress at Yield, ISO Method

Material: ABS	Sample C75	45.270	MPa	1.70% COV
	Sample C76	45.291	MPa	1.67% COV

Analysis 731 - Tensile Stress at Break, ISO Method

Material: ABS	Sample C75	34.706	MPa	3.11% COV
	Sample C76	34.624	MPa	3.24% COV



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Analysis 732 - Strain at Yield, ISO Method

Material: ABS	Sample C75	2.4333	Percent	4.26% COV
	Sample C76	2.4384	Percent	4.24% COV

Analysis 734 - Modulus of Elasticity, ISO Method

Material: ABS	Sample C75	2,418.39	MPa	4.28% COV
	Sample C76	2,418.30	MPa	4.10% COV

Analysis 736 - Flexural Modulus

Material: ABS	Sample K75	2,407.47	MPa	3.50% COV
	Sample K76	2,408.06	MPa	3.49% COV

Analysis 737 - Flexural Stress at 3.5% Strain

Material: ABS	Sample K75	69.095	MPa	2.17% COV
	Sample K76	69.233	MPa	2.55% COV

Analysis 738 - Flexural Stress at Yield

Material: ABS	Sample K75	70.410	MPa	2.23% COV
	Sample K76	70.489	MPa	2.55% COV

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

Material: PP	Sample X75	13.939	grams/10 mins	7.12% COV
	Sample X76	13.789	grams/10 mins	7.25% COV

Analysis 755 - Moisture Content

Material: ABS	Sample Y75	0.14551	Percent	16.4% COV
	Sample Y76	0.14303	Percent	16.7% COV

Analysis 757 - Ash Content

Material: PBT	Sample L75	30.466	Percent	0.808% COV
	Sample L76	30.470	Percent	0.829% COV

Analysis 758 - TGA

Material: PP	Sample A75	79.112	Percent	0.633% COV
	Sample A76	79.332	Percent	0.946% COV

Analysis 760 - DSC Crystallization Temperature

Material: PBT	Sample W75	175.19	Degrees Celsius	2.52% COV
	Sample W76	174.97	Degrees Celsius	2.53% COV

Analysis 761 - DSC Melt Temperature

Material: PBT	Sample W75	223.80	Degrees Celsius	0.554% COV
	Sample W76	223.87	Degrees Celsius	0.565% COV

Analysis 762 - DSC Enthalpy of Crystallization

Material: PBT	Sample W75	45.832	Joules Per Gram	10.3% COV
	Sample W76	45.728	Joules Per Gram	9.50% COV

Analysis 763 - DSC Enthalpy of Fusion

Material: PBT	Sample W75	39.991	Joules Per Gram	15.1% COV
	Sample W76	40.122	Joules Per Gram	14.9% COV

Analysis 764 - DSC Glass Transition Temperature

Material: ABS	Sample V75	110.09	Degrees Celsius	1.96% COV
	Sample V76	109.52	Degrees Celsius	2.34% COV

Analysis 765 - Research Crystallization Peak Temperature

Material: PBT	Sample W75	177.46	Degrees Celsius	2.80% COV
	Sample W76	177.69	Degrees Celsius	2.61% COV



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Analysis 766 - Research Melting Peak Temperature

Material: PBT	Sample W75	223.07	Degrees Celsius	0.383% COV
	Sample W76	223.14	Degrees Celsius	0.519% COV

Analysis 767 - Research Heat of Crystallization

Material: PBT	Sample W75	50.034	Joules Per Gram	8.04% COV
	Sample W76	49.263	Joules Per Gram	9.24% COV

Analysis 768 - Research Heat of Fusion

Material: PBT	Sample W75	44.194	Joules Per Gram	14.8% COV
	Sample W76	43.519	Joules Per Gram	16.2% COV

Analysis 769 - Research Glass Transition Temperature

Material: ABS	Sample V75	108.77	Degrees Celsius	3.09% COV
	Sample V76	107.97	Degrees Celsius	3.80% COV

Analysis 770 - Tensile Stress at Yield, Films

Material: LDPE	Sample B75	2,121.52	psi	24.1% COV
	Sample B76	2,131.53	psi	24.5% COV

Analysis 771 - Tensile Stress at Break, Films

Material: LDPE	Sample B75	3,403.56	psi	11.9% COV
	Sample B76	3,395.97	psi	12.0% COV

Analysis 772 - Elongation at Yield, Films

Material: LDPE	Sample B75	88.339	Percent	16.7% COV
	Sample B76	88.515	Percent	18.3% COV

Analysis 773 - Elongation at Break, Films

Material: LDPE	Sample B75	727.65	Percent	19.8% COV
	Sample B76	723.57	Percent	19.1% COV

Analysis 774 - Thickness of Film Specimens

Material: LDPE	Sample B75	2.7614	mils	4.39% COV
	Sample B76	2.6940	mils	3.29% COV

Analysis 775 - Secant Modulus at 1% Strain

Material: LDPE	Sample B75	31,786.11	psi	15.5% COV
	Sample B76	31,375.57	psi	14.1% COV

Analysis 776 - Secant Modulus at 2% Strain

Material: LDPE	Sample B75	27,328.32	psi	18.8% COV
	Sample B76	26,967.78	psi	17.6% COV

Analysis 780 - Static Friction

Material: LDPE	Sample P75	0.16878	COF	29.1% COV
	Sample P76	0.16881	COF	25.9% COV

Analysis 781 - Kinetic Friction

Material: LDPE	Sample P75	0.10306	COF	44.6% COV
	Sample P76	0.11524	COF	39.9% COV

Analysis 782 - Tear Resistance of Film

Material: LDPE	Sample Q75	327.59	grams-force	16.6% COV
	Sample Q76	305.04	grams-force	10.0% COV

Analysis 785 - Percent Haze

Material: LDPE	Sample D75	19.778	Percent	4.59% COV
	Sample D76	19.839	Percent	4.67% COV



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Analysis 786 - Total Transmittance

Material: LDPE	Sample D75	92.338	Percent	1.30% COV
	Sample D76	92.352	Percent	1.28% COV

Analysis 790 - Notched Izod Impact

Material: ABS	Sample S75	3.8210	ft.lbf/in	6.82% COV
	Sample S76	3.8415	ft.lbf/in	7.01% COV

Analysis 791 - Notched Izod Impact

Material: ABS/PC	Sample Z75	43.614	kJ/m ²	6.75% COV
	Sample Z76	43.652	kJ/m ²	6.53% COV

Analysis 792 - Notched Charpy Impact

Material: ABS/PC	Sample M75	47.154	kJ/m ²	8.24% COV
	Sample M76	47.140	kJ/m ²	8.68% COV



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Report #118

Analysis 704

2nd Qtr 2021

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2K9RB9		7,246.1	-72.2	-0.47	7,196.8	-109.6	-0.72
2KAQ83		7,089.5	-228.9	-1.49	7,092.4	-214.0	-1.41
2VQDJN		7,454.2	135.8	0.89	7,426.2	119.8	0.79
36A88Q	X	8,018.9	700.5	4.57	7,970.6	664.2	4.37
37NNBV		7,353.0	34.6	0.23	7,353.6	47.2	0.31
3EG7JC		7,229.0	-89.4	-0.58	7,180.6	-125.8	-0.83
4HBF96		7,352.0	33.6	0.22	7,346.0	39.6	0.26
4JRC26		7,205.6	-112.8	-0.74	7,143.6	-162.8	-1.07
6KXCEA		7,333.2	14.8	0.10	7,371.6	65.2	0.43
6XG4U4	X	6,631.9	-686.5	-4.48	6,347.3	-959.1	-6.31
7BKU8W		7,372.6	54.2	0.35	7,351.4	45.0	0.30
87BTQY		7,460.3	141.9	0.93	7,464.0	157.6	1.04
8D8JDU		7,311.4	-7.0	-0.05	7,296.3	-10.1	-0.07
8HYXUP		7,228.4	-90.0	-0.59	7,245.4	-61.0	-0.40
8QFBWU		7,469.7	151.3	0.99	7,403.9	97.5	0.64
9ANV9N		7,096.0	-222.4	-1.45	7,053.0	-253.4	-1.67
9NRAFD		7,077.9	-240.5	-1.57	7,106.9	-199.5	-1.31
A7JP7M	X	7,106.6	-211.8	-1.38	6,746.0	-560.4	-3.69
ABXFFN		7,197.0	-121.4	-0.79	7,210.1	-96.3	-0.63
BLWBCY		7,334.0	15.6	0.10	7,312.0	5.6	0.04
BRXPXZ		7,517.6	199.2	1.30	7,490.0	183.6	1.21
C224BL	X	7,589.2	270.8	1.77	7,731.2	424.8	2.79
C4PV7N		7,333.8	15.4	0.10	7,407.8	101.4	0.67
C6GQTX		7,534.7	216.3	1.41	7,532.0	225.6	1.48
CFGHE6		7,267.4	-51.0	-0.33	7,328.8	22.4	0.15
CRDB3V		7,372.0	53.6	0.35	7,348.0	41.6	0.27
CVRZ9Q		7,145.4	-173.0	-1.13	7,188.2	-118.2	-0.78
CXH7MV		7,138.8	-179.6	-1.17	7,124.3	-182.1	-1.20
EBXXBN		7,262.8	-55.6	-0.36	7,258.8	-47.6	-0.31
EHZ3BK		7,114.0	-204.4	-1.33	7,157.4	-149.0	-0.98
EPWZYM	*	7,390.0	71.6	0.47	7,263.6	-42.8	-0.28
F7YU89		7,330.0	11.6	0.08	7,304.0	-2.4	-0.02
FNJFXQ		7,352.0	33.6	0.22	7,301.0	-5.4	-0.04
FXPHYG		7,426.4	108.0	0.70	7,430.8	124.4	0.82
GJMFQ9		7,252.0	-66.4	-0.43	7,214.2	-92.2	-0.61



Plastics Interlaboratory Testing Program

Report #118

Analysis 704

2nd Qtr 2021

Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
GRU6HL		7,256.0	-62.4	-0.41	7,284.4	-22.0	-0.14
HATGQM	*	7,758.0	439.6	2.87	7,714.0	407.6	2.68
HH4UUC		6,976.0	-342.4	-2.23	6,936.0	-370.4	-2.44
HT89FA		7,248.2	-70.2	-0.46	7,234.0	-72.4	-0.48
JGBFQJ		7,504.3	185.9	1.21	7,472.4	166.0	1.09
JWL4V8		7,334.2	15.8	0.10	7,322.2	15.8	0.10
KV6848		7,164.1	-154.3	-1.01	7,138.2	-168.2	-1.11
LUTPLN		7,343.0	24.6	0.16	7,293.8	-12.6	-0.08
NBQU4G	*	7,256.0	-62.4	-0.41	7,362.0	55.6	0.37
NDA26P		7,140.0	-178.4	-1.16	7,126.1	-180.4	-1.19
NH9C6V		7,314.0	-4.4	-0.03	7,358.0	51.6	0.34
NP6YBA		7,215.6	-102.8	-0.67	7,125.8	-180.6	-1.19
NZPJCK		7,369.7	51.3	0.33	7,319.5	13.1	0.09
P2V9BN		7,295.0	-23.4	-0.15	7,358.0	51.6	0.34
Q2AAGM		7,254.0	-64.4	-0.42	7,300.0	-6.4	-0.04
Q4WQTF		7,459.6	141.2	0.92	7,446.2	139.8	0.92
Q6PLBH		7,188.1	-130.3	-0.85	7,101.1	-205.3	-1.35
QD8TEG	*	7,785.6	467.2	3.05	7,755.8	449.4	2.96
RJQFNC		7,363.9	45.5	0.30	7,319.0	12.5	0.08
RLTKU7		7,410.4	92.0	0.60	7,419.4	113.0	0.74
THNC4Z		7,555.6	237.2	1.55	7,503.2	196.8	1.29
UDCN8B		7,109.0	-209.4	-1.37	7,120.0	-186.4	-1.23
UXG8D7		7,357.7	39.3	0.26	7,409.2	102.8	0.68
V7AUT9	X	7,349.4	31.0	0.20	7,057.8	-248.6	-1.64
W7PHJ3		7,122.7	-195.7	-1.28	7,118.8	-187.6	-1.23
W82BHB		7,457.6	139.2	0.91	7,430.2	123.8	0.81
WBUE33		7,476.6	158.2	1.03	7,478.1	171.7	1.13
XY6WVF		7,474.0	155.6	1.01	7,436.0	129.6	0.85
YC38XT		7,404.0	85.6	0.56	7,362.2	55.8	0.37
YL99E8		7,248.8	-69.6	-0.45	7,209.2	-97.2	-0.64
YQ6WR8		7,158.4	-160.0	-1.04	7,161.8	-144.7	-0.95
Z9ZUPT		7,243.0	-75.4	-0.49	7,198.2	-108.2	-0.71
ZKCAHK		7,481.8	163.4	1.07	7,488.2	181.8	1.20
ZPQMMD		7,405.8	87.4	0.57	7,406.6	100.2	0.66



Plastics Interlaboratory Testing Program

Report #118

Analysis 704

2nd Qtr 2021

Tensile Stress at Yield - psi

Summary Statistics	<u>Sample F75</u>	<u>Sample F76</u>
Grand Means	7,318.40 psi	7,306.41 psi
Stnd Dev Btwn Labs	153.36 psi	151.99 psi
Statistics based on 64 of 69 reporting participants		

Sample F75: ABS/PC & Sample F76: ABS/PC

Comments on Assigned Data Flags for Test #704

- V7AUT9 (X) - Inconsistent in testing between samples.
- 36A88Q (X) - Data for both samples are high. Possible Systematic Error.
- C224BL (X) - Data for sample F76 are high. Inconsistent within the determinations of sample F75.
- A7JP7M (X) - Data for sample F76 are low. Inconsistent within the determinations of sample F76.
- 6XG4U4 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

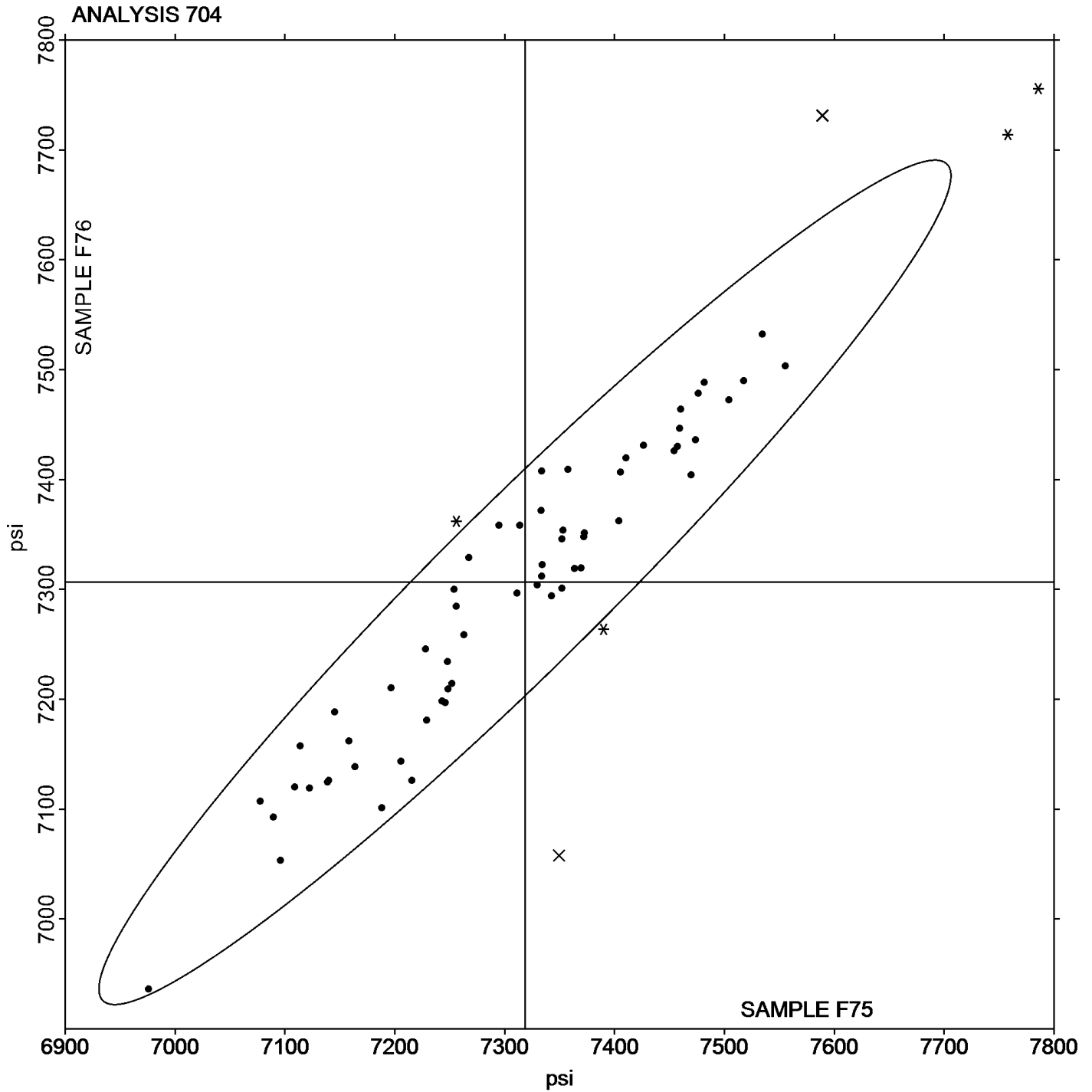
Analysis 704

Tensile Stress at Yield - psi

Report #118

2nd Qtr 2021

Grand Mean Sample F75: 7,318.40 psi Grand Mean Sample F76: 7,306.41 psi





Plastics Interlaboratory Testing Program

Report #118

Analysis 705

2nd Qtr 2021

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2K9RB9		6,370.1	-132.4	-0.44	6,277.3	-250.0	-0.77
2KAQ83		6,199.0	-303.5	-1.01	6,201.9	-325.4	-1.00
2VQDJN	*	6,804.5	302.0	1.00	7,143.8	616.5	1.90
36A88Q	*	7,390.3	887.8	2.94	7,432.9	905.6	2.79
37NNBV		6,345.6	-156.9	-0.52	6,275.4	-251.9	-0.78
3EG7JC		6,171.7	-330.8	-1.10	6,270.0	-257.3	-0.79
4HBF96		6,489.4	-13.1	-0.04	6,555.7	28.4	0.09
4JRC26		6,322.6	-179.9	-0.60	6,481.8	-45.5	-0.14
6XG4U4	X	5,891.6	-610.9	-2.02	5,408.3	-1,119.0	-3.45
7BKU8W		6,116.8	-385.7	-1.28	6,080.2	-447.1	-1.38
87BTQY		6,481.5	-21.0	-0.07	6,442.0	-85.3	-0.26
8D8JDU		6,829.6	327.1	1.08	6,927.9	400.6	1.24
8HYXUP		6,952.0	449.5	1.49	7,033.2	505.9	1.56
8QFBWU		6,653.9	151.4	0.50	6,695.5	168.2	0.52
9ANV9N	*	6,480.2	-22.3	-0.07	6,154.6	-372.7	-1.15
9NRAFD		6,178.7	-323.8	-1.07	6,236.7	-290.6	-0.90
A7JP7M	X	5,875.8	-626.7	-2.08	4,902.2	-1,625.1	-5.01
ABXFFN		6,209.1	-293.4	-0.97	6,169.4	-357.9	-1.10
BLWBCY		6,490.5	-12.0	-0.04	6,536.1	8.8	0.03
BRXPXZ		6,608.8	106.3	0.35	6,590.2	62.9	0.19
C4PV7N		6,270.6	-231.9	-0.77	6,276.8	-250.5	-0.77
CFGHE6		6,487.6	-14.9	-0.05	6,446.4	-80.9	-0.25
CRDB3V		6,085.4	-417.1	-1.38	6,280.0	-247.3	-0.76
CT74XE		6,722.0	219.5	0.73	6,890.0	362.7	1.12
CVRZ9Q		6,198.2	-304.3	-1.01	6,358.6	-168.7	-0.52
CXH7MV		5,937.9	-564.6	-1.87	5,981.4	-545.9	-1.68
EBXXBN		6,216.8	-285.7	-0.95	6,146.6	-380.7	-1.17
EHZ3BK		6,172.8	-329.7	-1.09	6,241.6	-285.7	-0.88
EPWZYM		6,452.2	-50.3	-0.17	6,241.2	-286.1	-0.88
F7YU89		6,766.0	263.5	0.87	6,740.0	212.7	0.66
FNJFXQ		6,511.6	9.1	0.03	6,476.6	-50.7	-0.16
FXPHYG		6,549.2	46.7	0.15	6,604.8	77.5	0.24
GJMFQ9		6,420.6	-81.9	-0.27	6,397.4	-129.9	-0.40
GRU6HL		6,178.2	-324.3	-1.07	6,275.8	-251.5	-0.78
HATGQM		6,842.0	339.5	1.12	6,878.0	350.7	1.08



Plastics Interlaboratory Testing Program

Report #118

Analysis 705

2nd Qtr 2021

Tensile Stress at Break - psi

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
HH4UUC		6,882.0	379.5	1.26	6,870.0	342.7	1.06
HT89FA	X	7,666.4	1,163.9	3.85	7,017.2	489.9	1.51
JGBFQJ		6,535.5	33.0	0.11	6,639.9	112.6	0.35
JWL4V8		6,629.7	127.3	0.42	6,563.8	36.5	0.11
KV6848		6,260.5	-242.0	-0.80	6,370.4	-156.9	-0.48
LUTPLN		6,484.8	-17.7	-0.06	6,487.6	-39.7	-0.12
NBQU4G		6,829.4	326.9	1.08	6,996.8	469.5	1.45
NDA26P		6,878.3	375.8	1.24	6,856.0	328.7	1.01
NH9C6V		6,818.0	315.5	1.04	6,702.0	174.7	0.54
NP6YBA		6,294.4	-208.1	-0.69	6,169.0	-358.3	-1.11
NZPJCK		6,539.8	37.3	0.12	6,562.1	34.8	0.11
P2V9BN		6,536.2	33.7	0.11	6,534.8	7.5	0.02
Q4WQTF		6,338.4	-164.1	-0.54	6,396.8	-130.5	-0.40
Q6PLBH		6,341.1	-161.4	-0.53	6,143.9	-383.4	-1.18
QD8TEG		7,260.8	758.3	2.51	7,265.0	737.7	2.28
RJQFNC		6,784.1	281.6	0.93	6,778.5	251.2	0.78
RLTKU7		6,591.2	88.7	0.29	6,754.4	227.1	0.70
THNC4Z		6,616.8	114.3	0.38	6,558.6	31.3	0.10
UDCN8B		6,433.8	-68.7	-0.23	6,659.2	131.9	0.41
W7PHJ3		6,403.3	-99.2	-0.33	6,306.2	-221.1	-0.68
WBUE33	*	7,094.5	592.0	1.96	6,875.5	348.2	1.07
YC38XT		6,840.0	337.5	1.12	7,120.0	592.7	1.83
YL99E8		6,413.8	-88.7	-0.29	6,304.8	-222.5	-0.69
YQ6WR8		5,992.7	-509.8	-1.69	5,945.0	-582.3	-1.80
Z9ZUPT		6,303.4	-199.1	-0.66	6,376.4	-150.9	-0.47
ZKCAHK	*	6,124.6	-377.9	-1.25	6,511.4	-15.9	-0.05
ZPQMMD		6,514.6	12.1	0.04	6,622.4	95.1	0.29

Summary Statistics

Grand Means

Sample F75

6,502.49 psi

Sample F76

6,527.30 psi

Std Dev Btwn Labs

302.01 psi

324.09 psi

Statistics based on 59 of 62 reporting participants

Sample F75: ABS/PC & Sample F76: ABS/PC



Plastics Interlaboratory Testing Program

Analysis 705

Tensile Stress at Break - psi

Report #118

2nd Qtr 2021

Comments on Assigned Data Flags for Test #705

A7JP7M (X) - Data for sample F76 are low. Inconsistent within the determinations of sample F76.

HT89FA (X) - Data for sample F75 are high. Inconsistent within the determinations of sample F76.

6XG4U4 (X) - Data for sample F76 are low. Inconsistent within the determinations of sample F76.



Plastics Interlaboratory Testing Program

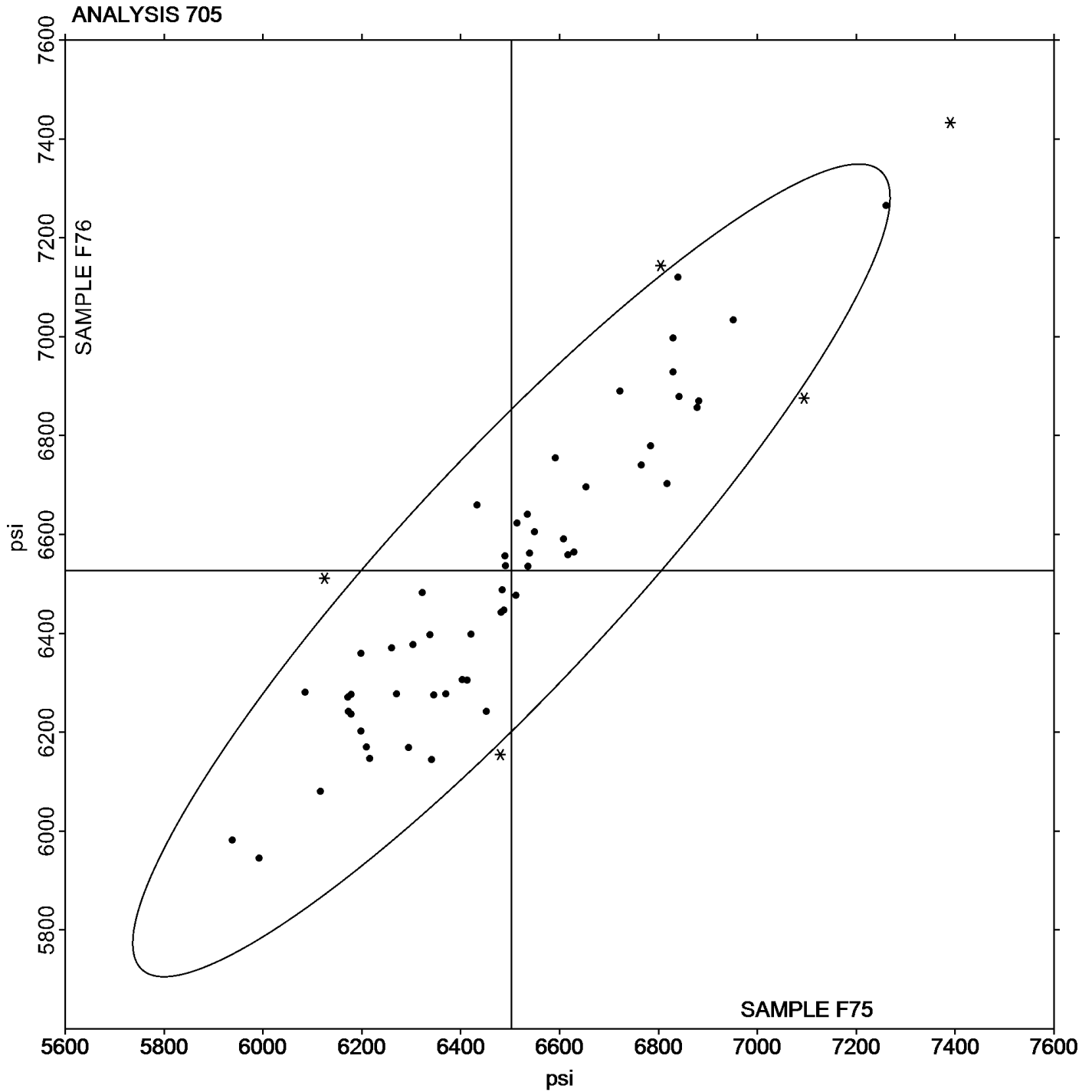
Analysis 705

Tensile Stress at Break - psi

Report #118

2nd Qtr 2021

Grand Mean Sample F75: 6,502.49 psi Grand Mean Sample F76: 6,527.30 psi





Plastics Interlaboratory Testing Program

Report #118

Analysis 706

2nd Qtr 2021

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2K9RB9		4.612	0.023	0.11	4.526	-0.023	-0.12
2KAQ83		4.668	0.079	0.38	4.634	0.085	0.43
2VQDJN		4.850	0.261	1.27	4.738	0.189	0.97
37NNBV		4.696	0.107	0.52	4.716	0.167	0.85
3EG7JC		4.622	0.033	0.16	4.626	0.077	0.39
4HBF96		4.704	0.115	0.56	4.474	-0.075	-0.39
4JRC26		4.304	-0.285	-1.38	4.256	-0.293	-1.50
6XG4U4	X	6.484	1.894	9.19	6.293	1.744	8.93
7BKU8W		4.494	-0.095	-0.46	4.476	-0.073	-0.38
87BTQY	X	3.841	-0.749	-3.63	3.816	-0.733	-3.75
8D8JDU		4.292	-0.297	-1.44	4.300	-0.249	-1.28
8HYXUP		4.626	0.037	0.18	4.630	0.081	0.41
8QFBWU	*	4.000	-0.589	-2.86	4.000	-0.549	-2.81
9ANV9N		4.774	0.185	0.90	4.800	0.251	1.28
9NRAFD		4.358	-0.231	-1.12	4.352	-0.197	-1.01
ABXFFN	*	4.950	0.361	1.75	4.536	-0.013	-0.07
BLWBCY		4.448	-0.141	-0.69	4.510	-0.039	-0.20
C4PV7N		4.282	-0.307	-1.49	4.276	-0.273	-1.40
CFGHE6		4.536	-0.053	-0.26	4.612	0.063	0.32
CRDB3V		4.612	0.023	0.11	4.574	0.025	0.13
CVRZ9Q		4.548	-0.041	-0.20	4.324	-0.225	-1.15
CXH7MV		4.484	-0.105	-0.51	4.464	-0.085	-0.44
EBXXBN		4.772	0.183	0.89	4.668	0.119	0.61
EHZ3BK		4.468	-0.121	-0.59	4.610	0.061	0.31
EPWZYM	*	4.710	0.121	0.59	4.966	0.417	2.13
F7YU89		4.880	0.291	1.41	4.920	0.371	1.90
FNJFXQ		4.798	0.209	1.01	4.704	0.155	0.79
FXPHYG	X	97.378	92.789	450.14	101.654	97.105	496.90
GJMFQ9		4.430	-0.159	-0.77	4.408	-0.141	-0.72
GRU6HL	*	4.210	-0.379	-1.84	4.508	-0.041	-0.21
HATGQM	X	6.390	1.801	8.74	6.112	1.563	8.00
HH4UUC		4.412	-0.177	-0.86	4.290	-0.259	-1.33
HT89FA	X	121.762	117.173	568.43	104.022	99.473	509.02
JGBFQJ		4.620	0.031	0.15	4.640	0.091	0.46
JWL4V8		4.370	-0.219	-1.06	4.476	-0.073	-0.38



Plastics Interlaboratory Testing Program

Report #118

Analysis 706

2nd Qtr 2021

Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
KV6848		4.662	0.073	0.35	4.502	-0.047	-0.24
LUTPLN		4.578	-0.011	-0.05	4.556	0.007	0.03
NBQU4G		4.522	-0.067	-0.33	4.384	-0.165	-0.85
NDA26P		4.606	0.017	0.08	4.634	0.085	0.43
NH9C6V		4.938	0.349	1.69	4.876	0.327	1.67
NP6YBA	X	3.980	-0.609	-2.96	2.980	-1.569	-8.03
NZPJCK		4.548	-0.041	-0.20	4.486	-0.063	-0.32
P2V9BN		4.596	0.007	0.03	4.638	0.089	0.45
Q4WQTF		4.838	0.249	1.21	4.814	0.265	1.35
Q6PLBH		5.080	0.491	2.38	4.960	0.411	2.10
QD8TEG		4.646	0.057	0.28	4.638	0.089	0.45
RJQFNC		4.396	-0.193	-0.94	4.470	-0.079	-0.40
RLTKU7		4.732	0.143	0.69	4.690	0.141	0.72
THNC4Z		4.610	0.021	0.10	4.600	0.051	0.26
UDCN8B	*	4.932	0.343	1.66	4.578	0.029	0.15
UXG8D7	X	11.539	6.950	33.72	10.534	5.984	30.62
V7AUT9	*	4.644	0.055	0.27	4.246	-0.303	-1.55
W7PHJ3		4.183	-0.407	-1.97	4.118	-0.431	-2.21
W82BHB		4.436	-0.153	-0.74	4.470	-0.079	-0.41
WBUE33		4.725	0.136	0.66	4.650	0.101	0.52
YC38XT		4.680	0.091	0.44	4.660	0.111	0.57
YL99E8		4.574	-0.015	-0.07	4.392	-0.157	-0.81
YQ6WR8		4.602	0.013	0.06	4.607	0.057	0.29
Z9ZUPT		4.564	-0.025	-0.12	4.620	0.071	0.36
ZKCAHK		4.580	-0.009	-0.04	4.606	0.057	0.29
ZPQMMD		4.616	0.027	0.13	4.454	-0.095	-0.49

Summary Statistics

	Sample F75	Sample F76
Grand Means	4.5892 Percent	4.5493 Percent
Std Dev Btwn Labs	0.2061 Percent	0.1954 Percent

Statistics based on 54 of 61 reporting participants

Sample F75: ABS/PC & Sample F76: ABS/PC



Comments on Assigned Data Flags for Test #706

- FXPHYG (X) - Extreme data.
- NP6YBA (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- HT89FA (X) - Extreme data.
- UXG8D7 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 87BTQY (X) - Data for both samples are low. Possible Systematic Error.
- 6XG4U4 (X) - Data for both samples are high. Possible Systematic Error.
- HATGQM (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F76.



Plastics Interlaboratory Testing Program

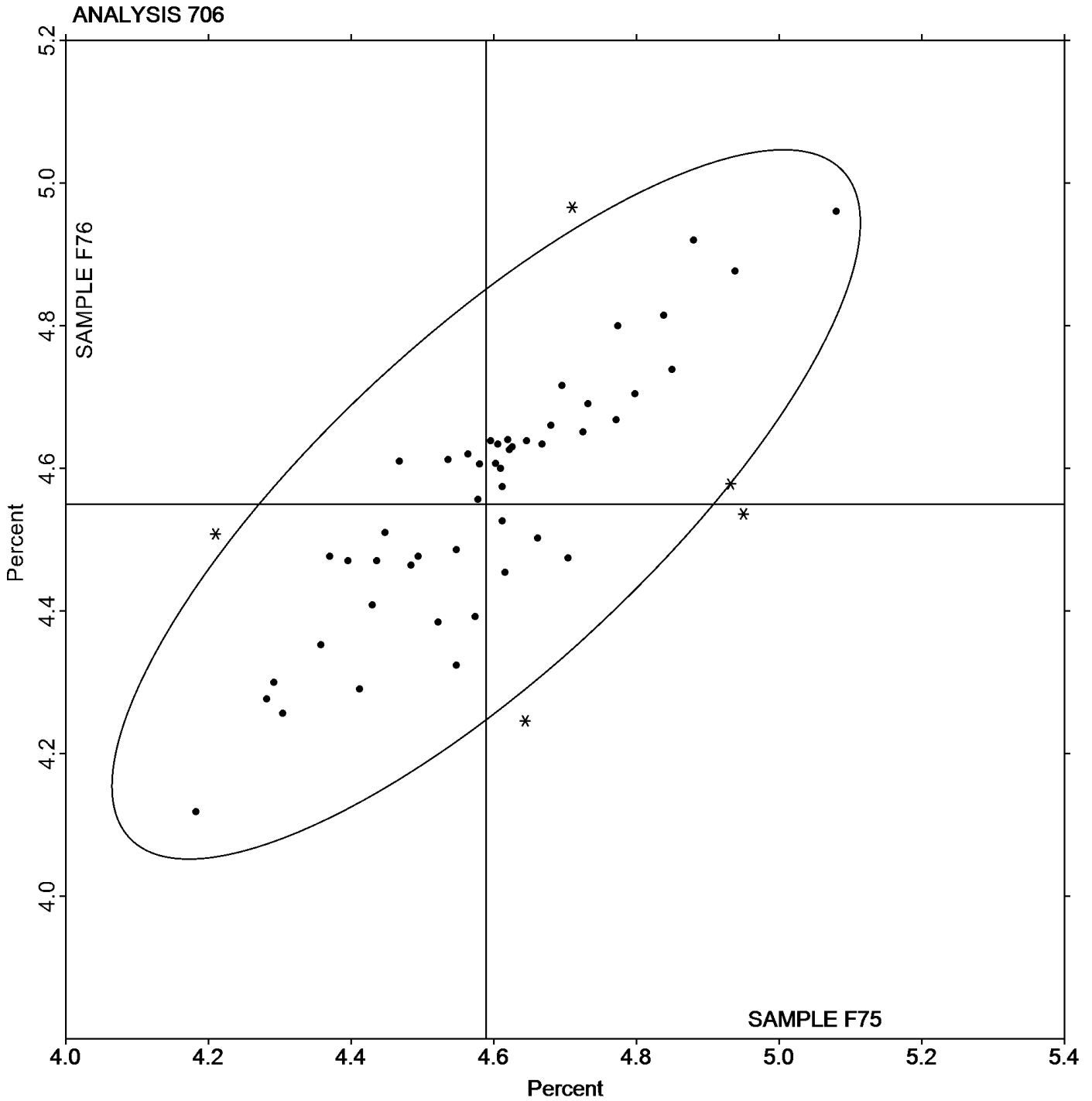
Analysis 706

Percent Elongation at Yield - Percent

Report #118

2nd Qtr 2021

Grand Mean Sample F75: 4.5892 Percent Grand Mean Sample F76: 4.5493 Percent





Plastics Interlaboratory Testing Program

Report #118

Analysis 708

2nd Qtr 2021

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2K9RB9		340.52	9.14	0.50	335.77	5.09	0.28
2KAQ83		311.55	-19.83	-1.08	307.55	-23.12	-1.29
2VQDJN		336.77	5.39	0.29	335.88	5.20	0.29
37NNBV		366.96	35.58	1.94	366.00	35.33	1.96
3EG7JC	X	0.30	-331.08	-18.01	0.30	-330.37	-18.37
4HBF96		331.38	0.00	0.00	336.06	5.38	0.30
4JRC26		340.00	8.62	0.47	342.84	12.17	0.68
6XG4U4	X	201.66	-129.72	-7.06	200.81	-129.86	-7.22
7BKU8W		333.04	1.66	0.09	328.96	-1.71	-0.10
87BTQY		345.03	13.66	0.74	345.58	14.91	0.83
8D8JDU		353.66	22.28	1.21	356.24	25.56	1.42
8HYXUP		328.96	-2.42	-0.13	329.72	-0.95	-0.05
8QFBWU	X	434.13	102.75	5.59	433.16	102.48	5.70
9ANV9N	*	284.48	-46.90	-2.55	284.72	-45.95	-2.56
9NRAFD		339.13	7.75	0.42	340.93	10.25	0.57
ABXFFN		351.35	19.97	1.09	344.35	13.68	0.76
BLWBCY		341.77	10.39	0.57	344.98	14.30	0.80
C4PV7N		371.68	40.30	2.19	363.28	32.61	1.81
CFGHE6		328.00	-3.38	-0.18	330.40	-0.27	-0.02
CRDB3V		298.96	-32.42	-1.76	301.44	-29.23	-1.63
CVRZ9Q		333.28	1.90	0.10	336.20	5.53	0.31
CXH7MV		328.60	-2.78	-0.15	328.54	-2.13	-0.12
EBXXBN		331.81	0.43	0.02	333.60	2.93	0.16
EHZ3BK		323.28	-8.10	-0.44	323.02	-7.65	-0.43
EPWZYM		314.60	-16.78	-0.91	309.20	-21.47	-1.19
F7YU89		307.80	-23.58	-1.28	309.20	-21.47	-1.19
FNJFXQ	X	262.24	-69.14	-3.76	268.28	-62.39	-3.47
FXPHYG		292.74	-38.64	-2.10	293.26	-37.41	-2.08
GJMFQ9		313.26	-18.12	-0.99	313.66	-17.01	-0.95
GRU6HL		329.54	-1.83	-0.10	331.34	0.67	0.04
HATGQM	*	354.60	23.22	1.26	336.00	5.33	0.30
HH4UUC		320.80	-10.58	-0.58	317.40	-13.27	-0.74
HT89FA		326.16	-5.22	-0.28	334.52	3.85	0.21
JGBFQJ		330.40	-0.98	-0.05	328.95	-1.73	-0.10
JWL4V8		355.28	23.90	1.30	360.26	29.59	1.65



Plastics Interlaboratory Testing Program

Report #118

Analysis 708

2nd Qtr 2021

Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F75			Sample F76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
KV6848		324.04	-7.34	-0.40	323.04	-7.63	-0.42
LUTPLN		331.22	-0.16	-0.01	326.16	-4.51	-0.25
NBQU4G		332.40	1.02	0.06	317.40	-13.27	-0.74
NDA26P		306.53	-24.85	-1.35	304.90	-25.77	-1.43
NH9C6V		308.24	-23.14	-1.26	312.20	-18.47	-1.03
NZPJCK		338.09	6.71	0.36	349.40	18.73	1.04
P2V9BN		334.24	2.86	0.16	335.32	4.65	0.26
Q4WQTF		313.66	-17.72	-0.96	311.86	-18.81	-1.05
Q6PLBH	X	393.64	62.26	3.39	297.91	-32.76	-1.82
QD8TEG		359.32	27.94	1.52	358.42	27.75	1.54
RJQFNC		348.35	16.97	0.92	344.37	13.70	0.76
RLTKU7		330.26	-1.12	-0.06	335.30	4.63	0.26
THNC4Z		354.34	22.96	1.25	349.48	18.81	1.05
UDCN8B	X	262.80	-68.58	-3.73	284.40	-46.27	-2.57
V7AUT9		339.48	8.10	0.44	335.24	4.57	0.25
W7PHJ3	X	924.35	592.97	32.26	890.46	559.78	31.13
WBUE33		310.86	-20.51	-1.12	302.66	-28.01	-1.56
YC38XT		326.20	-5.18	-0.28	326.80	-3.87	-0.22
YL99E8		336.12	4.74	0.26	348.94	18.27	1.02
YQ6WR8		320.40	-10.98	-0.60	320.47	-10.21	-0.57
Z9ZUPT		324.61	-6.77	-0.37	335.79	5.12	0.28
ZKCAHK	*	363.60	32.22	1.75	348.68	18.01	1.00
ZPQMMD		333.02	1.64	0.09	328.08	-2.59	-0.14

Summary Statistics		
	Sample F75	Sample F76
Grand Means	331.380 ksi	330.674 ksi
Stnd Dev Btwn Labs	18.382 ksi	17.981 ksi
Statistics based on 51 of 58 reporting participants		

Sample F75: ABS/PC & Sample F76: ABS/PC



Comments on Assigned Data Flags for Test #708

FNJFXQ (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample F75.

8QFBWU (X) - Data for both samples are high. Possible Systematic Error.

W7PHJ3 (X) - Extreme data.

UDCN8B (X) - Data for sample F75 are low. Inconsistent within the determinations of sample F75.

6XG4U4 (X) - Data for both samples are low. Possible Systematic Error.

Q6PLBH (X) - Data for sample F75 are high. Inconsistent within the determinations of both samples.

3EG7JC (X) - Extreme data.



Plastics Interlaboratory Testing Program

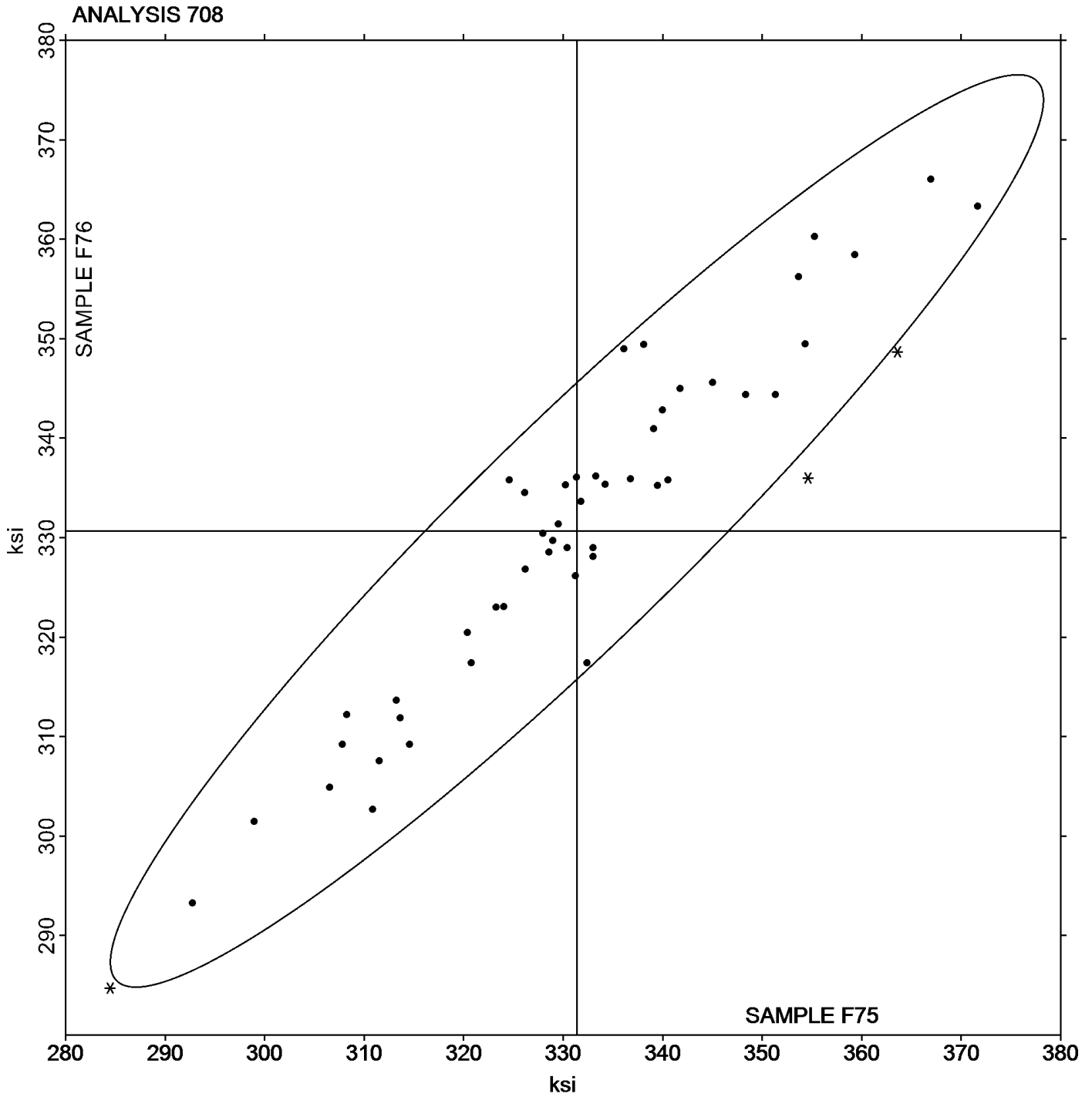
Report #118

Analysis 708

2nd Qtr 2021

Modulus of Elasticity - ksi

Grand Mean Sample F75: 331.38 ksi Grand Mean Sample F76: 330.67 ksi





Plastics Interlaboratory Testing Program

Report #118

Analysis 710

2nd Qtr 2021

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

WebCode	Data Flag	Sample E75			Sample E76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		78.78	0.02	0.03	78.93	0.22	0.29	IN
8D8JDU		78.85	0.10	0.12	78.70	0.00	0.00	CE
8HYXUP		79.25	0.50	0.60	78.88	0.17	0.23	CE
9ANV9N		79.05	0.30	0.36	78.75	0.05	0.06	CF
9NRAFD		78.38	-0.38	-0.45	78.05	-0.65	-0.86	RO
ABXFFN		77.75	-1.00	-1.20	77.83	-0.88	-1.16	CE
BRXPXZ		79.05	0.30	0.36	79.13	0.42	0.56	TO
C6GQTX		78.40	-0.36	-0.43	78.30	-0.40	-0.53	TO
EHZ3BK		76.95	-1.80	-2.16	77.15	-1.55	-2.05	TO
EPWZYM		79.13	0.37	0.45	78.60	-0.10	-0.13	XX
HT89FA		79.20	0.45	0.54	79.40	0.70	0.92	IN
JGBFQJ		80.03	1.27	1.53	80.03	1.32	1.75	AT
KV6848		78.70	-0.05	-0.06	78.73	0.02	0.03	TY
NH9C6V		79.63	0.87	1.05	79.03	0.32	0.43	CE
NZPJCK		79.50	0.75	0.90	79.20	0.50	0.66	CE
QD8TEG		78.38	-0.38	-0.45	78.48	-0.23	-0.30	IN
RDMJWZ		79.45	0.70	0.84	79.28	0.57	0.76	IN
RJQFNC		78.78	0.02	0.03	79.25	0.55	0.72	ZW
RLTKU7	*	76.53	-2.23	-2.67	76.93	-1.78	-2.35	RR
THNC4Z		79.05	0.30	0.36	79.03	0.32	0.43	TO
V7AUT9		77.55	-1.20	-1.44	77.43	-1.28	-1.69	TO
W82BHB		79.60	0.85	1.02	79.60	0.90	1.19	IN
YC38XT		79.45	0.70	0.84	79.58	0.87	1.15	XA
YL99E8		78.95	0.20	0.24	78.70	0.00	0.00	XX
ZPQMMD		78.48	-0.28	-0.33	78.63	-0.08	-0.10	RO

Summary Statistics		
	Sample E75	Sample E76
Grand Means	78.753 Degrees C	78.702 Degrees C
Std Dev Btwn Labs	0.834 Degrees C	0.758 Degrees C
Statistics based on 25 of 25 reporting participants		

Sample E75: HIPS & Sample E76: HIPS



Plastics Interlaboratory Testing Program

Report #118

Analysis 710

2nd Qtr 2021

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

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

Report #118

Analysis 711

2nd Qtr 2021

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

WebCode	Data Flag	Sample G75			Sample G76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		110.0	-3.6	-0.74	111.9	-2.0	-0.52	IN
ABXFFN		113.6	0.0	0.01	113.4	-0.5	-0.14	CE
BRXPXZ		115.4	1.8	0.38	115.3	1.4	0.36	TO
C6GQTX		117.0	3.4	0.71	116.7	2.8	0.72	TO
C6ZBZP		113.1	-0.5	-0.11	113.8	-0.1	-0.03	TO
F7YU89		116.6	3.0	0.63	115.7	1.8	0.46	CE
JGBFQJ		118.6	5.0	1.04	116.8	2.9	0.75	AT
NRQ2VN		110.5	-3.0	-0.63	110.3	-3.6	-0.93	CE
Q2AAGM		109.3	-4.3	-0.90	110.0	-3.9	-1.01	XX
RJQFNC		113.9	0.3	0.06	116.1	2.1	0.55	ZW
THNC4Z		117.1	3.5	0.73	117.9	3.9	1.02	TO
V7AUT9		109.9	-3.6	-0.76	108.3	-5.6	-1.45	TO
W82BHB		119.8	6.2	1.29	119.2	5.3	1.36	IN
XY6WVF		109.0	-4.6	-0.95	110.0	-3.9	-1.01	XX
YL99E8		102.7	-10.9	-2.26	107.5	-6.5	-1.66	AT
ZPQMMD		120.9	7.3	1.52	119.9	5.9	1.53	XX

Summary Statistics		
	Sample G75	Sample G76
Grand Means	113.57 Degrees C	113.91 Degrees C
Std Dev Btwn Labs	4.80 Degrees C	3.88 Degrees C
Statistics based on 16 of 16 reporting participants		

Sample G75: PP & Sample G76: PP

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

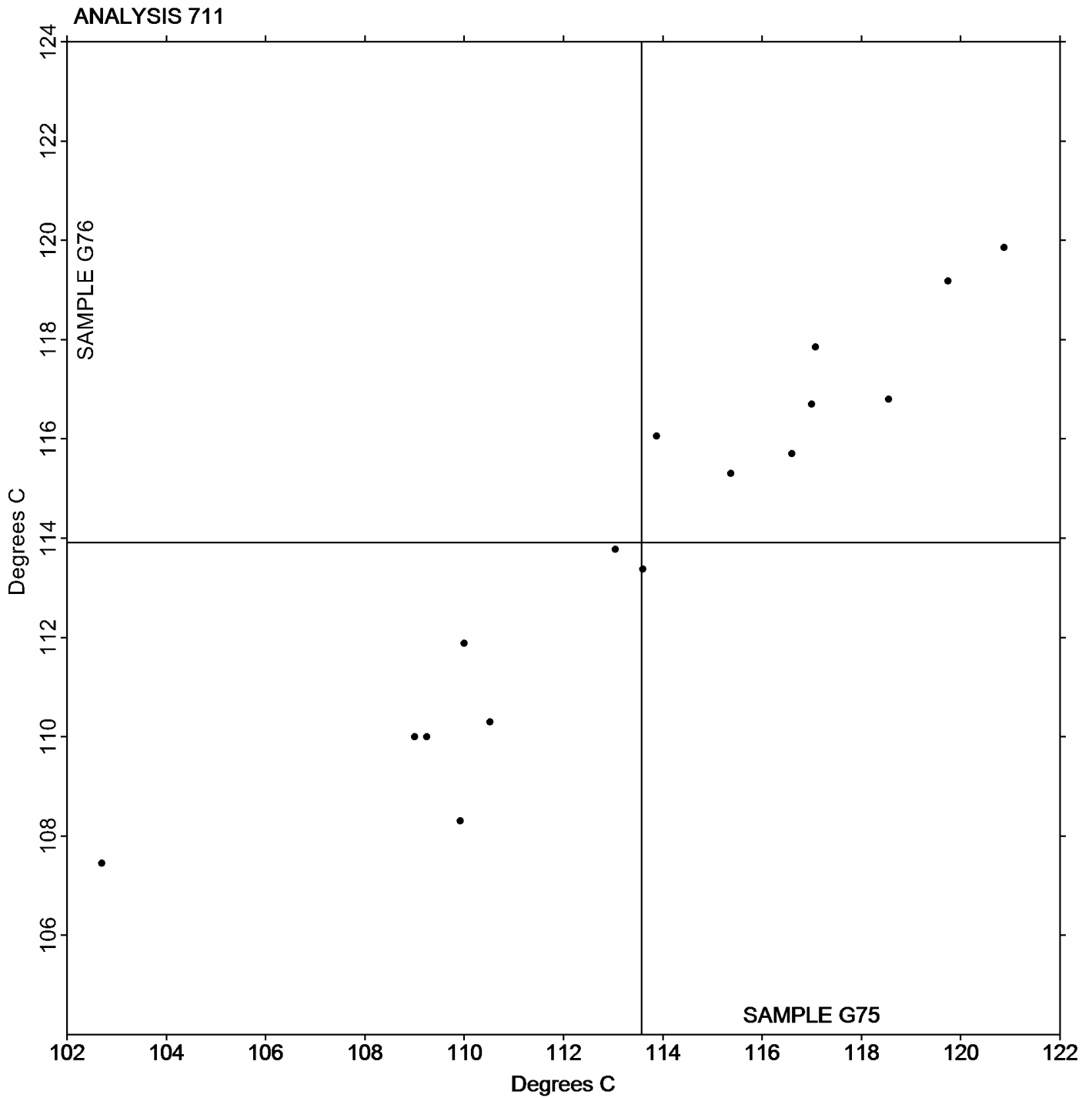
Report #118

Analysis 711

2nd Qtr 2021

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

Grand Mean Sample G75: 113.57 Degrees C Grand Mean Sample G76: 113.91 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 #118

Analysis 712

2nd Qtr 2021

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

WebCode	Data Flag	Sample N75			Sample N76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		82.08	0.55	0.56	82.08	0.54	0.55	IN
36RFWK		83.30	1.77	1.81	83.43	1.89	1.93	CF
6KG8UQ		82.48	0.95	0.97	82.63	1.09	1.11	XX
7MHKXA		82.00	0.47	0.48	81.73	0.19	0.19	DN
87TX7C		82.33	0.80	0.81	81.90	0.36	0.37	CE
8B28BY		81.60	0.07	0.08	81.38	-0.16	-0.17	CE
9JTXGR		81.49	-0.03	-0.03	81.54	0.00	0.00	TO
9LYFFN		81.48	-0.05	-0.05	81.73	0.19	0.19	TO
9VAFE6		80.68	-0.85	-0.87	80.45	-1.09	-1.11	TO
9WEEZX		81.23	-0.29	-0.30	81.13	-0.41	-0.41	CE
9Y9YCX		81.50	-0.03	-0.03	81.13	-0.41	-0.42	TO
ABXFFN		79.93	-1.60	-1.63	80.23	-1.31	-1.34	CE
BN2XRN		81.20	-0.33	-0.33	81.25	-0.29	-0.30	CE
C6GQTX		80.37	-1.15	-1.17	80.72	-0.82	-0.83	TO
DT6G68		82.20	0.67	0.69	82.03	0.49	0.50	CE
EP2CKX		81.18	-0.35	-0.36	81.10	-0.44	-0.45	CE
EPWZYM		83.48	1.95	1.98	83.63	2.09	2.13	XX
F7YU89		82.10	0.57	0.58	82.30	0.76	0.78	CF
GGGV39		82.43	0.90	0.91	82.60	1.06	1.08	IN
JGBFQJ		82.00	0.47	0.48	82.08	0.54	0.55	AT
KV6848		81.43	-0.10	-0.10	81.53	-0.01	-0.01	TY
KZDQ4L		81.30	-0.23	-0.23	81.33	-0.21	-0.22	TO
L9QYBE		81.04	-0.49	-0.50	80.75	-0.79	-0.81	DN
NDA26P		80.65	-0.88	-0.89	80.50	-1.04	-1.06	CE
NTNA7T		83.05	1.52	1.55	82.80	1.26	1.29	CE
P3TGLT		81.58	0.05	0.05	81.78	0.24	0.24	ZW
Q2AAGM		80.40	-1.13	-1.15	80.80	-0.74	-0.75	XX
QD8TEG		80.23	-1.30	-1.32	80.35	-1.19	-1.21	IN
R7YXND		79.35	-2.18	-2.21	79.13	-2.41	-2.46	CE
RJQFNC		81.30	-0.23	-0.23	81.58	0.04	0.04	ZW
TZAQP6		82.53	1.00	1.02	82.25	0.71	0.73	CE
W82BHB		82.03	0.50	0.51	82.35	0.81	0.83	IN
WKPA9D		79.65	-1.88	-1.91	79.83	-1.71	-1.75	XX
WRQNWZ		82.58	1.05	1.07	82.65	1.11	1.13	IN
XY6WVF		81.30	-0.23	-0.23	81.25	-0.29	-0.30	XX



Plastics Interlaboratory Testing Program

Report #118

Analysis 712

2nd Qtr 2021

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

Summary Statistics		
	<u>Sample N75</u>	<u>Sample N76</u>
Grand Means	81.526 Degrees C	81.539 Degrees C
Stnd Dev Btwn Labs	0.983 Degrees C	0.980 Degrees C
Statistics based on 35 of 35 reporting participants		

Sample N75: ABS & Sample N76: ABS

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

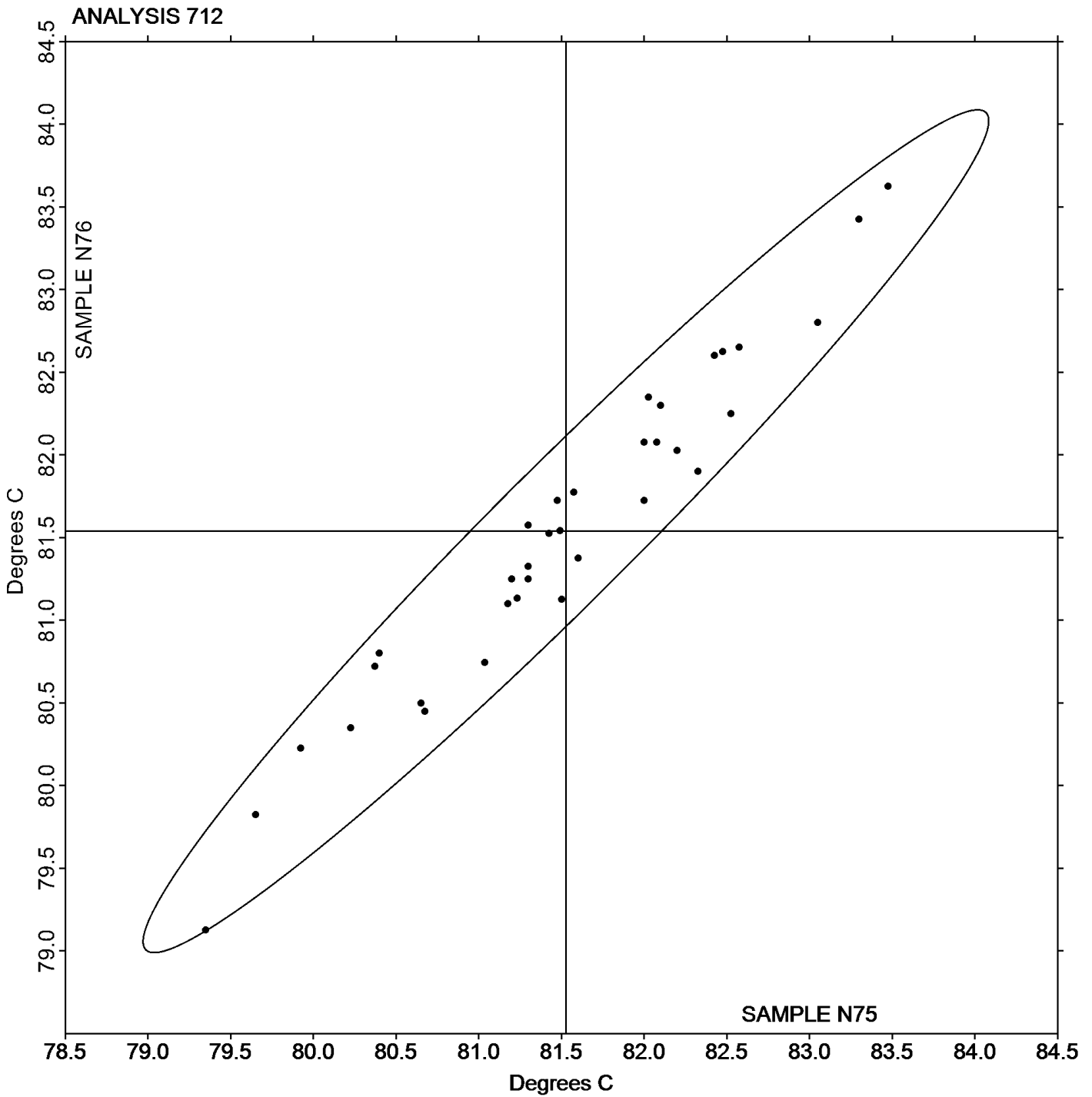
Report #118

Analysis 712

2nd Qtr 2021

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

Grand Mean Sample N75: 81.526 Degrees C Grand Mean Sample N76: 81.539 Degrees C





Plastics Interlaboratory Testing Program

Report #118

Analysis 715

2nd Qtr 2021

Vicat Softening Temperature (Rate A)

WebCode	Data Flag	Sample H75			Sample H76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		104.55	0.38	0.45	104.47	0.25	0.30	TO
37NNBV		104.00	-0.17	-0.20	104.00	-0.22	-0.27	CE
8HYXUP		104.88	0.71	0.85	105.00	0.78	0.96	CE
9NRAFD		102.90	-1.27	-1.51	103.02	-1.20	-1.47	RO
ABXFFN		103.40	-0.77	-0.92	103.37	-0.85	-1.04	CE
C6GQTX		103.65	-0.52	-0.62	103.57	-0.65	-0.80	TO
C6ZBZP		103.55	-0.62	-0.74	103.80	-0.42	-0.51	TO
CFGHE6		104.35	0.18	0.21	104.47	0.25	0.30	TO
DT6G68		105.10	0.93	1.11	105.12	0.90	1.10	CE
EHZ3BK		102.18	-1.99	-2.37	102.37	-1.85	-2.26	TO
EPWZYM	X	105.18	1.01	1.21	103.80	-0.42	-0.51	XX
F7YU89		104.65	0.48	0.57	104.65	0.43	0.53	CF
GLDDL U		104.23	0.06	0.08	104.18	-0.03	-0.04	CE
JGBFQJ		104.15	-0.02	-0.02	104.20	-0.02	-0.02	AT
KPJ8XT		104.45	0.28	0.33	104.42	0.20	0.24	CE
KV6848		105.62	1.45	1.72	105.68	1.47	1.79	TY
NDA26P		103.75	-0.42	-0.50	104.05	-0.17	-0.20	CE
NH9C6V		104.12	-0.05	-0.06	104.10	-0.12	-0.14	CE
NTNA7T		105.25	1.08	1.29	105.42	1.20	1.47	CF
RJQFNC		105.13	0.96	1.15	105.02	0.80	0.98	CF
RLTKU7		104.45	0.28	0.33	104.48	0.27	0.33	RR
WTJDGG		103.20	-0.97	-1.16	103.20	-1.02	-1.24	CE

Summary Statistics		Sample H75	Sample H76
Grand Means		104.170 Degrees C	104.217 Degrees C
Std Dev Btwn Labs		0.839 Degrees C	0.818 Degrees C
Statistics based on 21 of 22 reporting participants			

Sample H75: ABS & Sample H76: ABS

Comments on Assigned Data Flags for Test #715

EPWZYM (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

Report #118

Analysis 715

2nd Qtr 2021

Vicat Softening Temperature (Rate A)

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	RO	Rosand
RR	Ray-Ran	TO	Tinius Olsen
TY	Toyoseiki	XX	Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

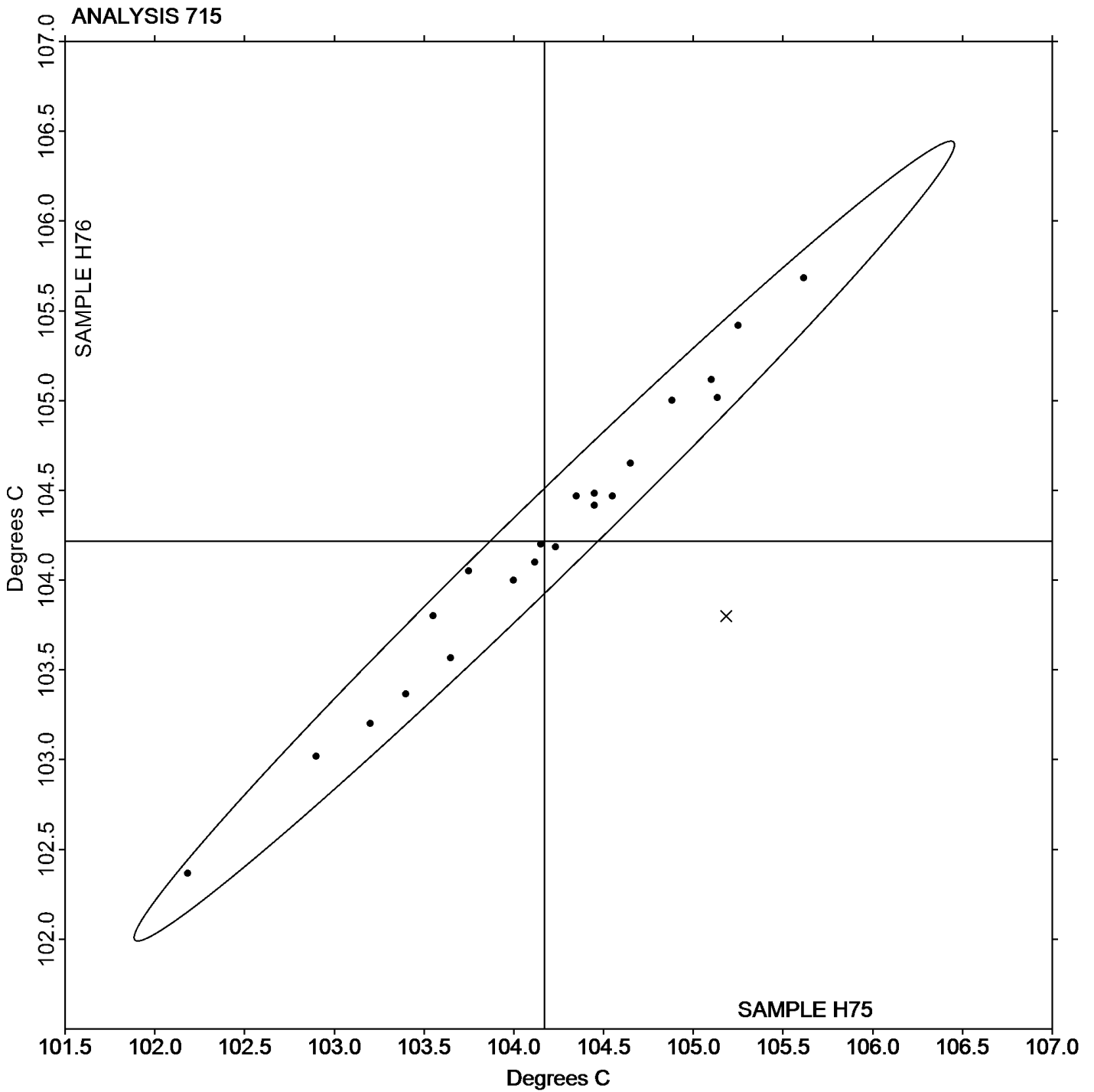
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Analysis 715

2nd Qtr 2021

Vicat Softening Temperature (Rate A)

Grand Mean Sample H75: 104.17 Degrees C Grand Mean Sample H76: 104.22 Degrees C





Plastics Interlaboratory Testing Program

Report #118

Analysis 716

2nd Qtr 2021

Vicat Softening Temperature (Rate B)

WebCode	Data Flag	Sample R75			Sample R76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		107.75	1.67	1.50	107.98	2.05	1.94	IN
37NNBV		105.67	-0.41	-0.37	105.83	-0.10	-0.10	CE
8HYXUP		106.88	0.80	0.72	106.95	1.01	0.96	CE
9NRAFD		104.72	-1.36	-1.22	104.85	-1.09	-1.03	RO
C6GQTX		104.93	-1.14	-1.02	105.02	-0.92	-0.87	TO
C6ZBZP		104.93	-1.14	-1.02	104.82	-1.12	-1.06	TO
CFGHE6		106.42	0.34	0.30	106.50	0.56	0.53	TO
DT6G68		106.93	0.86	0.77	106.62	0.68	0.64	CE
EHZ3BK		103.60	-2.48	-2.22	103.55	-2.39	-2.26	TO
EPWZYM		105.67	-0.41	-0.37	105.55	-0.39	-0.37	XX
F7YU89		106.70	0.62	0.56	106.50	0.56	0.53	CF
JGBFQJ		106.40	0.32	0.29	106.28	0.35	0.33	AT
KPJ8XT		104.35	-1.73	-1.55	104.47	-1.47	-1.39	CE
KV6848		107.28	1.21	1.08	106.75	0.81	0.77	TY
NDA26P		107.78	1.71	1.53	106.95	1.01	0.96	CE
NH9C6V		105.82	-0.26	-0.23	105.75	-0.19	-0.18	CE
NTNA7T		106.58	0.50	0.45	106.58	0.65	0.61	CF
R7YXND	*	106.40	0.32	0.29	105.00	-0.94	-0.89	CE
RJQFNC		106.23	0.16	0.14	106.30	0.36	0.34	CF
RLTKU7		106.52	0.44	0.39	106.50	0.56	0.53	RR

Summary Statistics		Sample R75	Sample R76
Grand Means		106.078 Degrees C	105.938 Degrees C
Stnd Dev Btwn Labs		1.117 Degrees C	1.056 Degrees C
Statistics based on 20 of 20 reporting participants			

Sample R75: ABS & Sample R76: ABS



Plastics Interlaboratory Testing Program

Report #118

Analysis 716

2nd Qtr 2021

Vicat Softening Temperature (Rate B)

Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	IN	Instron
RO	Rosand	RR	Ray-Ran
TO	Tinius Olsen	TY	Toyoseiki
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

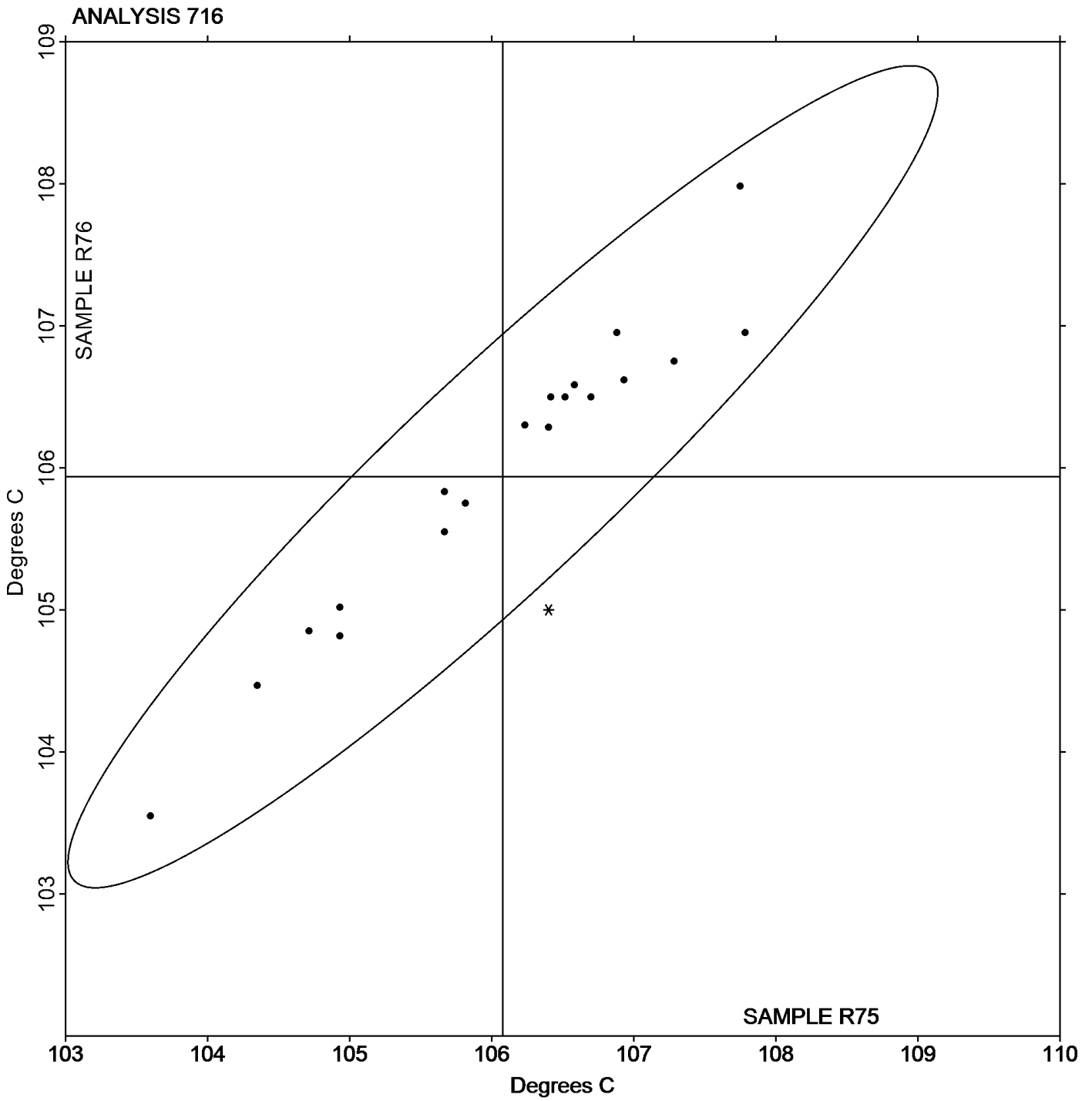
Report #118

Analysis 716

2nd Qtr 2021

Vicat Softening Temperature (Rate B)

Grand Mean Sample R75: 106.08 Degrees C Grand Mean Sample R76: 105.94 Degrees C





Plastics Interlaboratory Testing Program

Report #118

Analysis 718

2nd Qtr 2021

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T75			Sample T76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23PXM6	X	1.13880	-0.00024	-0.10	1.13527	-0.00393	-1.65
283T89		1.13790	-0.00114	-0.49	1.13810	-0.00109	-0.46
2QG9P4	X	1.14167	0.00263	1.12	1.13600	-0.00319	-1.34
2VQDJN		1.14010	0.00106	0.45	1.14043	0.00124	0.52
2WKCE2		1.13723	-0.00181	-0.77	1.13707	-0.00213	-0.89
36A88Q		1.13867	-0.00037	-0.16	1.13933	0.00014	0.06
36RFWK	X	1.13630	-0.00274	-1.17	1.12957	-0.00963	-4.04
37NNBV		1.13827	-0.00077	-0.33	1.13917	-0.00003	-0.01
3UCJZU		1.13560	-0.00344	-1.47	1.13590	-0.00329	-1.38
3WXCQ3		1.14067	0.00163	0.70	1.14167	0.00247	1.04
43ZEV3		1.13920	0.00016	0.07	1.13863	-0.00056	-0.23
4JRC26		1.13733	-0.00171	-0.73	1.13893	-0.00026	-0.11
62JXWF	X	1.13957	0.00053	0.23	1.14273	0.00354	1.49
6KXCEA		1.13900	-0.00004	-0.02	1.13900	-0.00019	-0.08
6Q7MJX		1.13930	0.00026	0.11	1.13917	-0.00003	-0.01
87TX7C	X	1.13553	-0.00351	-1.50	1.13953	0.00034	0.14
8B28BY		1.13867	-0.00037	-0.16	1.13867	-0.00053	-0.22
8D8JDU		1.14043	0.00139	0.60	1.14040	0.00121	0.51
8D9HCA		1.14123	0.00219	0.94	1.13993	0.00074	0.31
8HYXUP	X	1.14007	0.00103	0.44	1.13763	-0.00156	-0.65
8LLCM6		1.13467	-0.00437	-1.87	1.13433	-0.00486	-2.04
9JTXGR		1.13567	-0.00337	-1.44	1.13633	-0.00286	-1.20
9VAFE6		1.14130	0.00226	0.97	1.14053	0.00134	0.56
9WEEZX		1.13700	-0.00204	-0.87	1.13800	-0.00119	-0.50
A29L4R		1.13900	-0.00004	-0.02	1.13900	-0.00019	-0.08
ABXFFN		1.13983	0.00079	0.34	1.13967	0.00047	0.20
AL9UCV		1.13933	0.00029	0.13	1.13980	0.00061	0.26
BLWBCY		1.14173	0.00269	1.15	1.14160	0.00241	1.01
BRXPXZ		1.13870	-0.00034	-0.14	1.13863	-0.00056	-0.23
BZRR2W		1.14000	0.00096	0.41	1.14000	0.00081	0.34
C4PV7N		1.14457	0.00553	2.37	1.14483	0.00564	2.37
C6GQTX		1.14044	0.00140	0.60	1.14043	0.00123	0.52
CH8FR4		1.14180	0.00276	1.18	1.14153	0.00234	0.98
CT74XE		1.14117	0.00213	0.91	1.14067	0.00147	0.62
CVRZ9Q		1.14067	0.00163	0.70	1.14033	0.00114	0.48



Plastics Interlaboratory Testing Program

Report #118

Analysis 718

2nd Qtr 2021

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T75			Sample T76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
D2VBUP		1.13960	0.00056	0.24	1.14083	0.00164	0.69
DT6G68		1.13810	-0.00094	-0.40	1.13873	-0.00046	-0.19
EP2CKX		1.13733	-0.00171	-0.73	1.13767	-0.00153	-0.64
EPWZYM	X	1.14200	0.00296	1.27	1.14600	0.00681	2.86
F4V2BN		1.13818	-0.00086	-0.37	1.13946	0.00027	0.11
F7YU89	*	1.13300	-0.00604	-2.58	1.13250	-0.00669	-2.81
FXPHYG		1.13800	-0.00104	-0.44	1.13893	-0.00026	-0.11
GGGV39		1.14123	0.00219	0.94	1.14127	0.00207	0.87
GJQVAZ		1.14093	0.00189	0.81	1.14123	0.00204	0.86
HD9C8J		1.14043	0.00139	0.60	1.14027	0.00107	0.45
HMXVVQ		1.14140	0.00236	1.01	1.14163	0.00244	1.02
HT89FA	*	1.13437	-0.00467	-2.00	1.13347	-0.00573	-2.40
JGBFQJ		1.14037	0.00133	0.57	1.14033	0.00114	0.48
JZL773	X	1.13100	-0.00804	-3.44	1.13767	-0.00153	-0.64
KV6848		1.13400	-0.00504	-2.16	1.13467	-0.00453	-1.90
KZDQ4L		1.13697	-0.00207	-0.89	1.13673	-0.00246	-1.03
L9QYBE		1.14067	0.00163	0.70	1.13933	0.00014	0.06
LMN73P		1.14067	0.00163	0.70	1.14067	0.00147	0.62
LPDDRR		1.14137	0.00233	1.00	1.14137	0.00217	0.91
LTBZX2		1.13957	0.00053	0.23	1.13950	0.00031	0.13
M3UWET		1.14017	0.00113	0.48	1.14050	0.00131	0.55
MEP3EH		1.13897	-0.00007	-0.03	1.13960	0.00041	0.17
MLRXTK		1.14090	0.00186	0.80	1.14217	0.00297	1.25
NDA26P		1.13760	-0.00144	-0.62	1.13823	-0.00096	-0.40
NJJ48K		1.14000	0.00096	0.41	1.14000	0.00081	0.34
NZPJCK		1.13843	-0.00061	-0.26	1.13980	0.00061	0.26
P3TGLT		1.13500	-0.00404	-1.73	1.13533	-0.00386	-1.62
Q2AAGM		1.13567	-0.00337	-1.44	1.13500	-0.00419	-1.76
Q3R4FB	*	1.13867	-0.00037	-0.16	1.13690	-0.00229	-0.96
QD8TEG		1.14090	0.00186	0.80	1.14127	0.00207	0.87
QG9W4H	X	1.13800	-0.00104	-0.44	1.13567	-0.00353	-1.48
QK98YH		1.14170	0.00266	1.14	1.14223	0.00304	1.28
RDMJWZ		1.14140	0.00236	1.01	1.14180	0.00261	1.09
RJQFNC		1.14163	0.00259	1.11	1.14160	0.00241	1.01
RRZACD		1.13503	-0.00401	-1.71	1.13567	-0.00353	-1.48



Plastics Interlaboratory Testing Program

Report #118

Analysis 718

2nd Qtr 2021

Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T75			Sample T76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
THNC4Z		1.13833	-0.00071	-0.30	1.13767	-0.00153	-0.64
U2V2U3		1.14067	0.00163	0.70	1.14100	0.00181	0.76
UDCN8B	*	1.13333	-0.00571	-2.44	1.13233	-0.00686	-2.88
UXG8D7		1.13743	-0.00161	-0.69	1.13810	-0.00109	-0.46
V7AUT9		1.13613	-0.00291	-1.24	1.13773	-0.00146	-0.61
W82BHB		1.13763	-0.00141	-0.60	1.13840	-0.00079	-0.33
WRQNWZ		1.14133	0.00229	0.98	1.14167	0.00247	1.04
X8GQBH		1.14050	0.00146	0.63	1.14043	0.00124	0.52
XY6WVF		1.14013	0.00109	0.47	1.14083	0.00164	0.69
YAEXL7		1.13793	-0.00111	-0.47	1.13803	-0.00116	-0.49
YC38XT		1.14177	0.00273	1.17	1.14147	0.00227	0.96
YL99E8		1.14027	0.00123	0.53	1.14033	0.00114	0.48
YRFLD6	X	1.13100	-0.00804	-3.44	1.13207	-0.00713	-2.99
Z9ZUPT		1.14167	0.00263	1.12	1.14147	0.00227	0.96

Summary Statistics		
	Sample T75	Sample T76
Grand Means	1.139039 sp gr 23/23 C	1.139193 sp gr 23/23 C
Stnd Dev Btwn Labs	0.002337 sp gr 23/23 C	0.002381 sp gr 23/23 C
Statistics based on 74 of 84 reporting participants		

Sample T75: ABS/PC & Sample T76: ABS/PC

Comments on Assigned Data Flags for Test #718

- 87TX7C (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample T76.
- JZL773 (X) - Data for sample T75 are low. Inconsistent within the determinations of sample T75.
- 62JXWF (X) - Inconsistent in testing between samples.
- 2QG9P4 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample T75.
- QG9W4H (X) - Inconsistent in testing between samples.
- 36RFWK (X) - Data for sample T76 are low. Inconsistent within the determinations of both samples.
- 8HYXUP (X) - Inconsistent in testing between samples.
- EPWZYM (X) - Data for sample T76 are high. Inconsistent within the determinations of both samples.
- YRFLD6 (X) - Data for both samples are low. Possible Systematic Error.
- 23PXM6 (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

Analysis 718

Specific Gravity - sp gr 23/23 C

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Results by Methodology (as reported by laboratory)

Test Methodology	Sample T75 <i>ABS/PC</i>			Sample T76 <i>ABS/PC</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D792 Method A (water)	1.139110	0.002393	0.000	1.139218	0.002494	0.000	57/64
ASTM D792 Method B (not water)	1.139883	0.002522	0.001	1.140100	0.001933	0.001	2/2
ASTM D1505	1.139833	0.000000	0.001	1.139667	0.000000	0.000	1/1
ISO 1183	1.138571	0.002258	0.000	1.138926	0.002130	0.000	14/17



Plastics Interlaboratory Testing Program

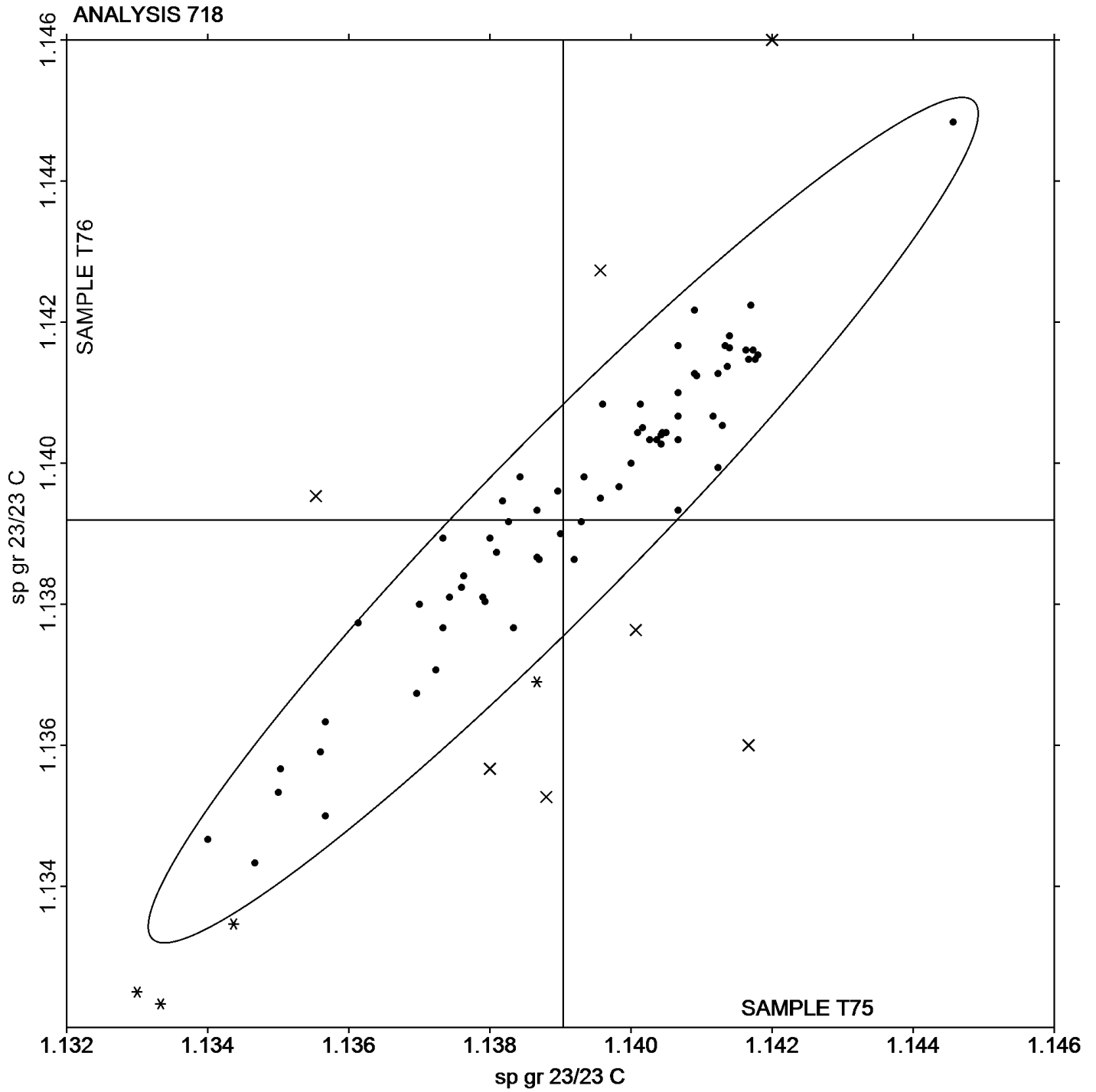
Analysis 718

Specific Gravity - sp gr 23/23 C

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Grand Mean Sample T75: 1.1390 sp gr 23/23 C Grand Mean Sample T76: 1.1392 sp gr 23/23 C





Plastics Interlaboratory Testing Program

Report #118

Analysis 720

2nd Qtr 2021

Flexural Modulus- ksi

WebCode	Data Flag	Sample J75			Sample J76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		368.6	22.1	1.31	369.3	22.8	1.40
37NNBV		355.2	8.7	0.52	354.9	8.3	0.51
4ET6BZ		360.1	13.6	0.81	357.8	11.3	0.69
4HBF96		344.8	-1.7	-0.10	345.2	-1.3	-0.08
4JRC26		342.5	-3.9	-0.23	342.7	-3.8	-0.24
4NLDXC	X	362.0	15.5	0.92	345.0	-1.5	-0.09
62JXWF		345.7	-0.7	-0.04	348.0	1.5	0.09
6GHNWY		355.7	9.2	0.55	356.2	9.7	0.59
7BKU8W		359.0	12.5	0.74	358.0	11.5	0.70
7W3YUK		361.8	15.3	0.91	360.4	13.9	0.85
87BTQY		349.5	3.1	0.18	348.1	1.6	0.10
8D8JDU		377.7	31.2	1.86	377.7	31.1	1.91
8HYXUP		339.9	-6.6	-0.39	340.1	-6.4	-0.39
8QFBWU		351.5	5.0	0.30	351.5	4.9	0.30
9ANV9N		361.8	15.3	0.91	357.9	11.3	0.69
9NRAFD		348.4	2.0	0.12	352.8	6.2	0.38
A7JP7M		330.7	-15.7	-0.94	330.6	-15.9	-0.97
ABXFFN	X	342.5	-4.0	-0.24	353.1	6.6	0.40
BLWBCY		345.8	-0.7	-0.04	345.8	-0.7	-0.05
BRXPXZ		356.5	10.0	0.60	356.2	9.7	0.59
C224BL	X	340.2	-6.3	-0.37	349.2	2.7	0.16
C4PV7N		362.9	16.4	0.98	364.3	17.8	1.09
C6GQTX		359.1	12.6	0.75	359.6	13.0	0.80
C6ZBZP		350.6	4.1	0.25	350.1	3.5	0.22
CRDB3V		353.2	6.7	0.40	350.0	3.5	0.21
EBXXBN		340.2	-6.3	-0.37	339.8	-6.8	-0.42
EPWZYM		332.8	-13.7	-0.81	332.2	-14.3	-0.88
FXPHYG		337.3	-9.2	-0.55	337.2	-9.4	-0.57
GJMFQ9		339.9	-6.6	-0.39	340.1	-6.4	-0.39
GW9XGQ		349.3	2.8	0.17	344.4	-2.2	-0.13
HH4UUC		349.0	2.5	0.15	352.6	6.1	0.37
HMXVVQ		339.8	-6.7	-0.40	336.4	-10.1	-0.62
HT89FA		324.7	-21.8	-1.30	328.3	-18.2	-1.12
JGBFQJ		330.8	-15.6	-0.93	336.6	-10.0	-0.61
JWL4V8		345.6	-0.9	-0.05	345.5	-1.1	-0.07



Plastics Interlaboratory Testing Program

Report #118

Analysis 720

2nd Qtr 2021

Flexural Modulus- ksi

WebCode	Data Flag	Sample J75			Sample J76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
KV6848		339.3	-7.2	-0.43	340.5	-6.1	-0.37
ML9BWM	*	327.5	-19.0	-1.13	334.6	-12.0	-0.74
NDA26P	*	311.5	-35.0	-2.08	309.1	-37.4	-2.30
NH9C6V		316.3	-30.2	-1.80	318.0	-28.6	-1.75
Q2AAGM		326.9	-19.6	-1.16	325.2	-21.4	-1.31
Q4WQTF	*	388.7	42.3	2.52	384.7	38.1	2.34
QD8TEG		360.9	14.4	0.86	361.0	14.5	0.89
QXQ282		317.3	-29.2	-1.74	316.6	-29.9	-1.84
RHU8A2		357.6	11.2	0.66	357.6	11.0	0.68
RJQFNC		330.6	-15.9	-0.94	333.2	-13.3	-0.82
RLTKU7		330.5	-15.9	-0.95	332.1	-14.4	-0.88
RM9Z7L	*	312.5	-34.0	-2.02	319.6	-27.0	-1.65
U2V2U3		350.2	3.7	0.22	350.7	4.1	0.25
UXG8D7		379.1	32.7	1.94	379.3	32.7	2.01
V7AUT9		367.8	21.3	1.27	368.5	22.0	1.35
VCFKVE		325.3	-21.2	-1.26	324.1	-22.5	-1.38
VFE4T7		331.4	-15.1	-0.90	330.7	-15.9	-0.97
W74287		346.7	0.2	0.01	346.6	0.1	0.00
W82BHB		367.8	21.3	1.27	367.0	20.5	1.26
XY6WVF		354.2	7.7	0.46	352.4	5.9	0.36
YAEVW2		324.5	-22.0	-1.31	323.3	-23.3	-1.43
YC38XT		354.4	7.9	0.47	355.8	9.3	0.57
YL99E8	X	336.6	-9.9	-0.59	326.6	-19.9	-1.22
Z9ZUPT	*	338.2	-8.3	-0.49	331.3	-15.2	-0.93
ZKCAHK		355.1	8.6	0.51	356.6	10.1	0.62
ZPQMMD		364.4	18.0	1.07	364.6	18.1	1.11

Summary Statistics		Sample J75	Sample J76
Grand Means		346.48 ksi	346.55 ksi
Std Dev Btwn Labs		16.80 ksi	16.31 ksi
Statistics based on 57 of 61 reporting participants			

Sample J75: ABS/PC & Sample J76: ABS/PC



Plastics Interlaboratory Testing Program

Analysis 720

Flexural Modulus- ksi

Report #118

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Comments on Assigned Data Flags for Test #720

ABXFFN (X) - Inconsistent in testing between samples.

YL99E8 (X) - Inconsistent in testing between samples.

C224BL (X) - Inconsistent in testing between samples.

4NLDXC (X) - Inconsistent in testing between samples.



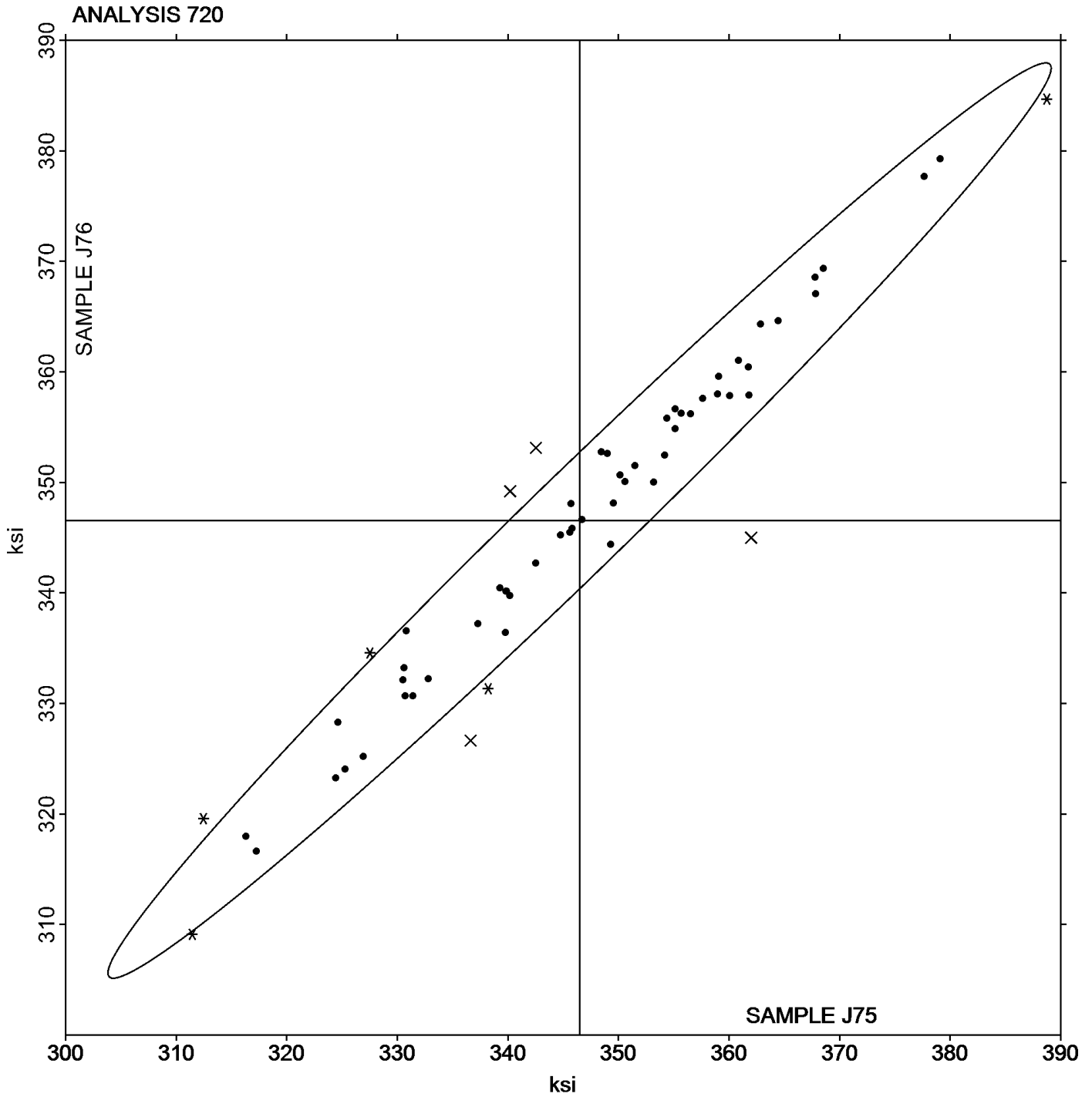
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Flexural Modulus- ksi

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Grand Mean Sample J75: 346.48 ksi Grand Mean Sample J76: 346.55 ksi





Plastics Interlaboratory Testing Program

Report #118

Analysis 721

2nd Qtr 2021

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J75			Sample J76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		12,426	407	0.86	12,465	440	0.96
37NNBV		12,224	204	0.43	12,228	203	0.44
4ET6BZ		12,600	580	1.23	12,475	450	0.98
4HBF96		11,520	-500	-1.06	11,480	-545	-1.19
4JRC26		11,824	-196	-0.41	11,763	-262	-0.57
4NLDXC	X	11,019	-1,001	-2.12	11,615	-410	-0.89
62JXWF		12,141	122	0.26	12,187	161	0.35
7BKU8W		12,743	724	1.53	12,690	664	1.44
7W3YUK		12,330	310	0.66	12,356	331	0.72
87BTQY		12,431	412	0.87	12,310	285	0.62
8HYXUP		12,429	409	0.87	12,449	424	0.92
8QFBWU		11,460	-560	-1.19	11,476	-549	-1.19
9ANV9N		12,213	193	0.41	12,129	104	0.23
9NRAFD	X	11,922	-97	-0.21	11,487	-538	-1.17
A7JP7M	*	10,982	-1,038	-2.20	10,895	-1,130	-2.46
ABXFFN	*	11,878	-141	-0.30	12,111	86	0.19
BLWBCY		11,580	-440	-0.93	11,600	-425	-0.93
BRXPXZ		12,365	345	0.73	12,320	294	0.64
C4PV7N	*	11,762	-258	-0.55	12,010	-15	-0.03
C6ZBZP		11,619	-401	-0.85	11,626	-399	-0.87
CRDB3V		12,494	474	1.00	12,473	448	0.97
EBXXBN		11,837	-182	-0.39	11,880	-145	-0.32
EPWZYM		11,827	-193	-0.41	11,835	-191	-0.41
FXPHYG		11,826	-194	-0.41	11,856	-169	-0.37
GJMFQ9		12,201	181	0.38	12,229	204	0.44
GW9XGQ		12,699	679	1.44	12,660	634	1.38
HMXVVQ		11,440	-580	-1.23	11,640	-385	-0.84
HT89FA		11,774	-245	-0.52	11,789	-237	-0.51
JGBFQJ		12,286	266	0.56	12,350	325	0.71
JWL4V8		12,087	67	0.14	12,137	111	0.24
KV6848		11,854	-166	-0.35	11,897	-129	-0.28
ML9BWM		12,107	87	0.19	12,199	174	0.38
NDA26P		11,913	-106	-0.23	11,795	-230	-0.50
NH9C6V		12,420	401	0.85	12,403	377	0.82
Q4WQTF	*	13,297	1,277	2.71	13,179	1,154	2.51



Plastics Interlaboratory Testing Program

Report #118

Analysis 721

2nd Qtr 2021

Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J75			Sample J76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QD8TEG		12,419	399	0.85	12,441	415	0.90
QXQ282		11,028	-991	-2.10	11,074	-952	-2.07
RHU8A2		12,041	21	0.05	12,030	5	0.01
RJQFNC		11,863	-157	-0.33	11,934	-91	-0.20
RLTKU7		11,763	-257	-0.54	11,768	-258	-0.56
RM9Z7L		12,226	206	0.44	12,197	171	0.37
U2V2U3		12,281	261	0.55	12,255	230	0.50
V7AUT9		12,426	407	0.86	12,471	446	0.97
VCFKVE		11,140	-880	-1.86	11,255	-770	-1.68
VFE4T7		11,587	-432	-0.92	11,593	-432	-0.94
W74287		11,669	-351	-0.74	11,687	-338	-0.74
YAEVW2		11,774	-246	-0.52	11,704	-321	-0.70
YC38XT		12,864	844	1.79	12,918	893	1.94
YL99E8		11,862	-157	-0.33	11,706	-320	-0.70
Z9ZUPT		11,349	-671	-1.42	11,299	-726	-1.58
ZKCAHK		11,781	-238	-0.50	11,696	-329	-0.72
ZPQMMD		12,318	299	0.63	12,350	325	0.71

Summary Statistics

	Sample J75	Sample J76
Grand Means	12,019.6 psi	12,025.4 psi
Std Dev Btwn Labs	471.9 psi	459.9 psi

Statistics based on 50 of 52 reporting participants

Sample J75: ABS/PC & Sample J76: ABS/PC

Comments on Assigned Data Flags for Test #721

- 9NRAFD (X) - Inconsistent in testing between samples.
- 4NLDXC (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

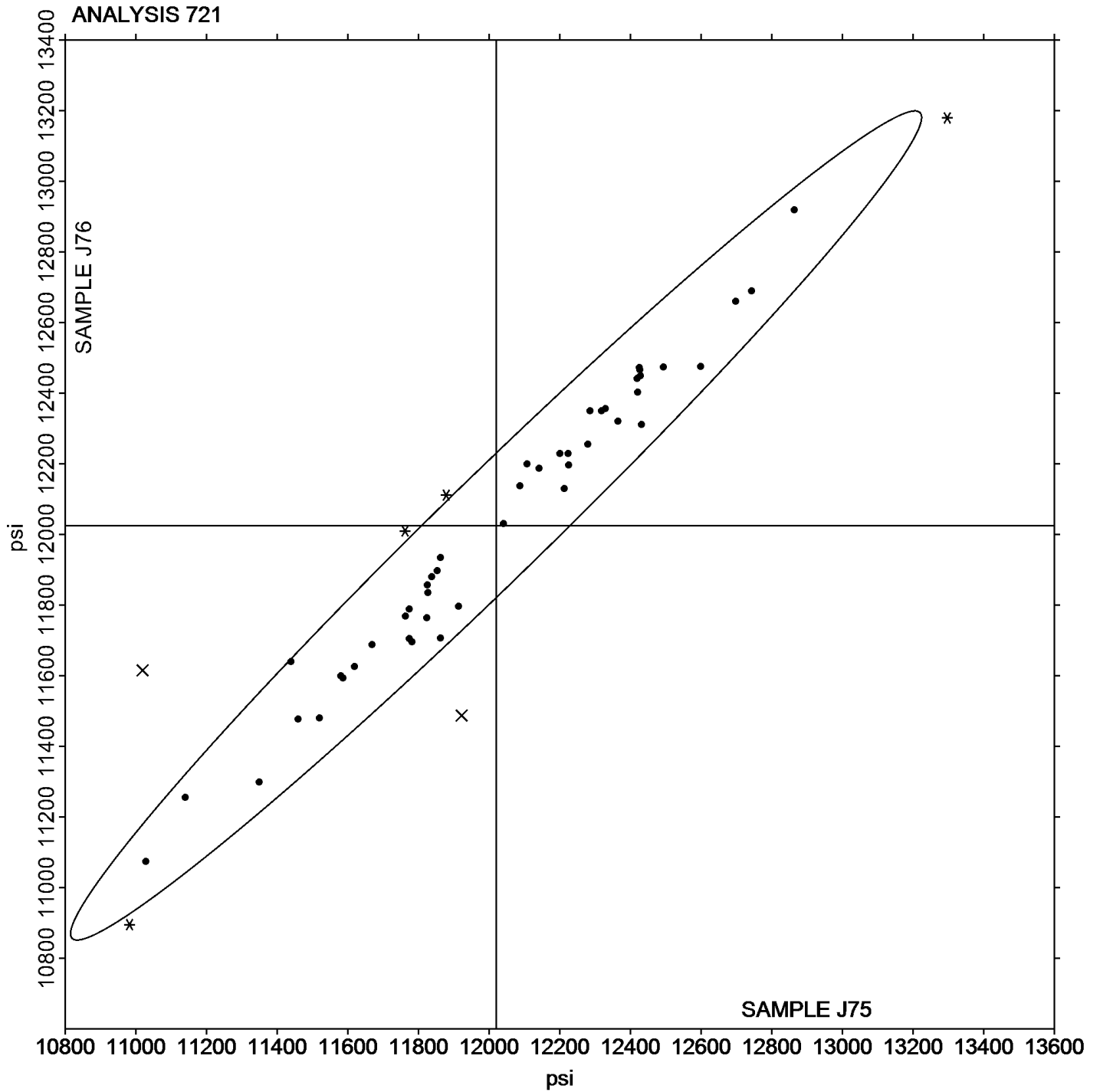
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Flexural Stress at 5% Strain - psi

Grand Mean Sample J75: 12,019.59 psi Grand Mean Sample J76: 12,025.44 psi





Plastics Interlaboratory Testing Program

Report #118

Analysis 722

2nd Qtr 2021

Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J75			Sample J76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
4ET6BZ	*	11,980	-186	-0.35	11,568	-583	-1.09
4JRC26		12,189	23	0.04	12,115	-36	-0.07
4NLDXC	X	8,815	-3,351	-6.38	7,745	-4,407	-8.24
6GHNWY		12,013	-153	-0.29	12,069	-83	-0.16
7BKU8W		12,911	745	1.42	12,860	709	1.33
7W3YUK		12,409	243	0.46	12,436	284	0.53
87BTQY		12,769	603	1.15	12,615	464	0.87
8D8JDU		12,829	663	1.26	12,907	756	1.41
8HYXUP		12,428	262	0.50	12,448	296	0.55
8QFBWU		11,459	-707	-1.35	11,473	-678	-1.27
9ANV9N		12,373	207	0.39	12,315	164	0.31
9NRAFD	*	11,922	-244	-0.46	11,487	-665	-1.24
A7JP7M		11,069	-1,097	-2.09	11,008	-1,143	-2.14
BRXPXZ		12,599	433	0.82	12,560	408	0.76
C4PV7N	*	12,218	52	0.10	12,564	412	0.77
C6ZBZP		11,729	-437	-0.83	11,739	-412	-0.77
EBXXBN		12,018	-148	-0.28	12,057	-95	-0.18
FXPHYG		11,972	-194	-0.37	12,050	-101	-0.19
GW9XGQ		12,901	735	1.40	12,861	710	1.33
HH4UUC		12,160	-6	-0.01	12,300	148	0.28
HMXVVQ		11,440	-726	-1.38	11,640	-512	-0.96
JGBFQJ		12,665	499	0.95	12,772	620	1.16
JWL4V8		12,119	-47	-0.09	12,169	17	0.03
KV6848		11,902	-264	-0.50	11,908	-244	-0.46
NDA26P		12,021	-145	-0.28	11,928	-223	-0.42
NH9C6V		12,432	266	0.51	12,425	273	0.51
Q4WQTF	*	13,486	1,320	2.51	13,345	1,193	2.23
QD8TEG		12,637	471	0.90	12,671	519	0.97
QXQ282		11,609	-557	-1.06	11,657	-495	-0.93
RJQFNC		11,954	-212	-0.40	12,002	-150	-0.28
RLTKU7		11,952	-214	-0.41	11,937	-215	-0.40
U2V2U3		12,593	427	0.81	12,533	381	0.71
VCFKVE		11,189	-977	-1.86	11,185	-966	-1.81
W74287		11,774	-392	-0.75	11,778	-374	-0.70
W82BHB		12,472	306	0.58	12,449	298	0.56



Plastics Interlaboratory Testing Program

Report #118

Analysis 722

2nd Qtr 2021

Flexural Stress at Yield - psi

WebCode	Data Flag	<u>Sample J75</u>			<u>Sample J76</u>		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
YAEVW2		11,802	-364	-0.69	11,738	-413	-0.77
YC38XT		12,878	712	1.36	12,848	696	1.30
Z9ZUPT		11,349	-817	-1.55	11,300	-851	-1.59
ZKCAHK		11,841	-325	-0.62	11,744	-408	-0.76
ZPQMMD		12,410	244	0.46	12,450	298	0.56

Summary Statistics		
	<u>Sample J75</u>	<u>Sample J76</u>
Grand Means	12,165.9 psi	12,151.6 psi
Stnd Dev Btwn Labs	525.4 psi	534.9 psi
Statistics based on 39 of 40 reporting participants		

Sample J75: ABS/PC & Sample J76: ABS/PC

Comments on Assigned Data Flags for Test #722

4NLDXC (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

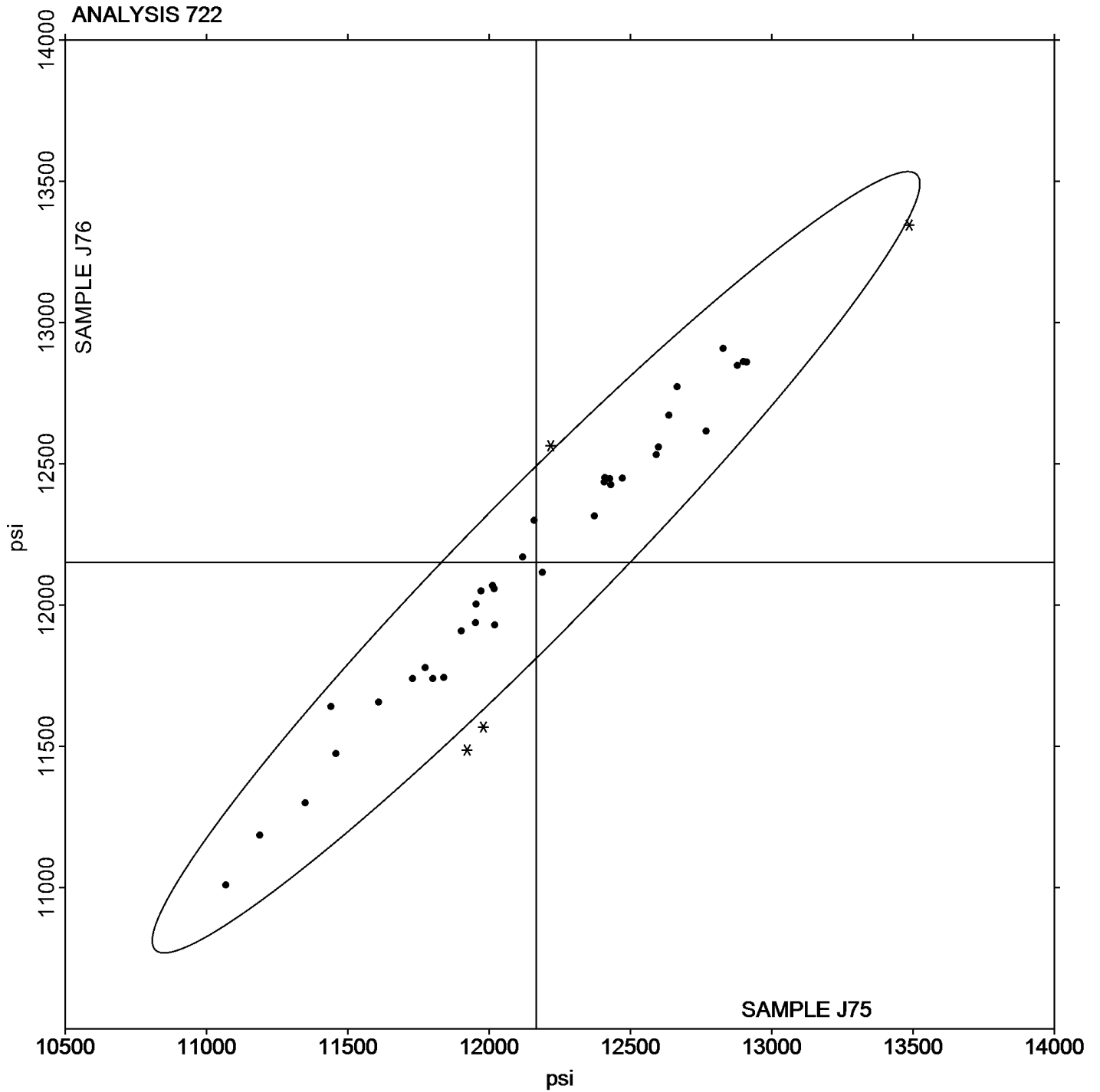
Report #118

Analysis 722

2nd Qtr 2021

Flexural Stress at Yield - psi

Grand Mean Sample J75: 12,165.94 psi Grand Mean Sample J76: 12,151.60 psi





Plastics Interlaboratory Testing Program

Report #118

Analysis 730

2nd Qtr 2021

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23PXM6		46.62	1.35	1.75	46.70	1.41	1.87
2VQDJN		46.04	0.77	0.99	45.93	0.64	0.84
2WKCE2		45.01	-0.26	-0.34	45.07	-0.22	-0.29
36RFWK		46.04	0.77	1.00	45.61	0.32	0.42
3BZUNG		46.17	0.90	1.16	46.73	1.44	1.91
43ZEV3		44.48	-0.79	-1.03	44.52	-0.77	-1.02
4TTW2C		45.60	0.33	0.43	45.58	0.29	0.38
6DHFQ4		44.65	-0.62	-0.81	44.54	-0.75	-0.99
6KXCEA		44.53	-0.74	-0.96	44.84	-0.45	-0.60
7MHKXA		45.48	0.21	0.27	45.33	0.04	0.06
82VDZ8		43.75	-1.52	-1.98	43.76	-1.53	-2.02
87TX7C		45.50	0.23	0.30	45.35	0.06	0.07
8B28BY		46.25	0.98	1.28	46.03	0.74	0.98
8HYXUP		45.67	0.40	0.52	45.81	0.52	0.69
9GJXBZ		46.46	1.19	1.54	46.28	0.99	1.30
9JTXGR		45.18	-0.09	-0.12	45.65	0.36	0.47
9LYFFN	*	43.36	-1.91	-2.47	44.17	-1.12	-1.48
9VAFE6		45.49	0.22	0.29	45.19	-0.10	-0.14
9WEEZX		44.79	-0.48	-0.63	45.49	0.20	0.27
9Y9YCX		45.58	0.31	0.40	45.58	0.29	0.38
ABXFFN		44.53	-0.74	-0.96	43.97	-1.33	-1.76
BRXPXZ		46.78	1.51	1.95	46.47	1.18	1.56
C6GQTX		45.30	0.03	0.04	45.54	0.24	0.32
C6ZBZP		44.63	-0.64	-0.84	44.89	-0.40	-0.53
CVVPB3		45.48	0.21	0.27	45.34	0.05	0.07
DT6G68		45.19	-0.08	-0.11	45.08	-0.21	-0.27
E8ZKKH		44.49	-0.78	-1.01	45.00	-0.29	-0.39
ENPH3D		43.54	-1.73	-2.25	43.65	-1.64	-2.17
F7YU89		45.48	0.21	0.27	45.38	0.09	0.12
GGGV39		45.64	0.37	0.48	45.60	0.31	0.40
HT89FA		44.10	-1.17	-1.52	44.05	-1.24	-1.64
JGBFQJ		45.92	0.65	0.84	45.90	0.61	0.81
KV6848		45.59	0.32	0.42	45.42	0.13	0.17
KZDQ4L		46.39	1.12	1.45	46.76	1.47	1.95
L9QYBE		45.39	0.12	0.15	45.79	0.50	0.66



Plastics Interlaboratory Testing Program

Report #118

Analysis 730

2nd Qtr 2021

Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NDA26P		44.29	-0.98	-1.27	44.50	-0.79	-1.05
NH9C6V		44.93	-0.34	-0.45	44.53	-0.76	-1.01
NTNA7T		45.86	0.59	0.77	45.90	0.61	0.81
P3TGLT		45.65	0.38	0.49	45.43	0.14	0.18
Q2AAGM		44.34	-0.93	-1.21	44.00	-1.29	-1.71
QD8TEG	X	45.28	0.01	0.02	46.46	1.17	1.55
QK98YH		45.50	0.23	0.30	46.04	0.75	0.99
R7YXND		44.46	-0.81	-1.05	44.73	-0.56	-0.74
RJQFNC		44.93	-0.34	-0.44	44.68	-0.61	-0.81
RLTKU7		45.64	0.37	0.48	45.58	0.29	0.38
TBQH8M		46.46	1.19	1.54	46.10	0.81	1.07
TDZMPH		46.05	0.78	1.01	45.57	0.28	0.37
TNG8AE		45.94	0.67	0.87	46.09	0.80	1.05
TZAQP6		44.13	-1.14	-1.48	44.01	-1.28	-1.69
VWLYR8		44.57	-0.70	-0.90	44.36	-0.93	-1.24
W82BHB		45.33	0.06	0.07	45.28	-0.01	-0.02
WKPA9D		45.72	0.45	0.58	45.19	-0.10	-0.13
WRQNWZ		45.33	0.06	0.07	45.92	0.63	0.83
WTJDGG		45.38	0.11	0.14	45.65	0.36	0.48
X8GQBH		45.07	-0.20	-0.26	45.16	-0.13	-0.17
XY6WVF		45.19	-0.08	-0.10	45.16	-0.13	-0.17
YGX2T9		45.30	0.03	0.04	45.44	0.15	0.20

Summary Statistics

	Sample C75	Sample C76
Grand Means	45.270 MPa	45.291 MPa
Std Dev Btwn Labs	0.771 MPa	0.755 MPa

Statistics based on 56 of 57 reporting participants

Sample C75: ABS & Sample C76: ABS

Comments on Assigned Data Flags for Test #730

QD8TEG (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

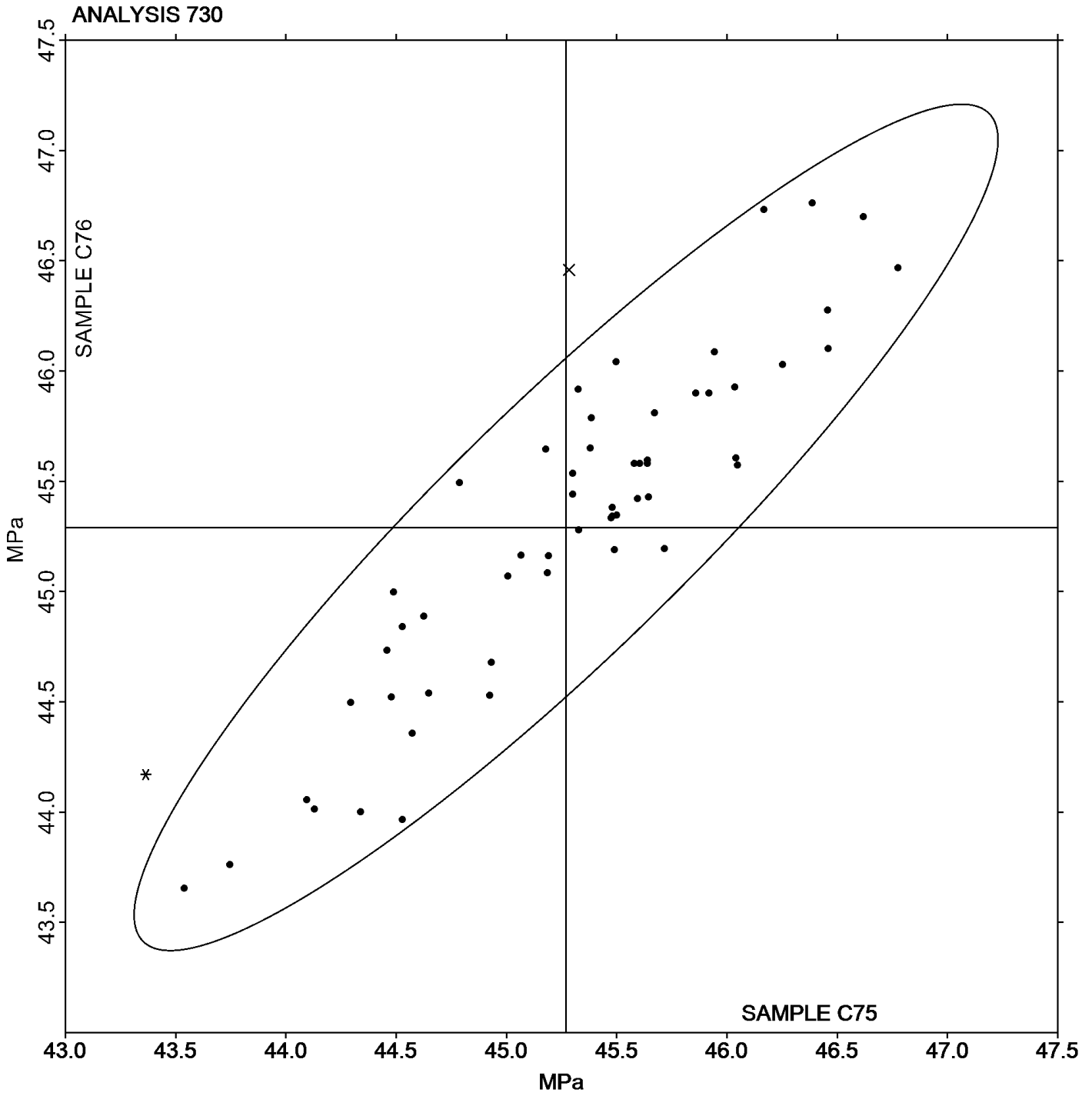
Analysis 730

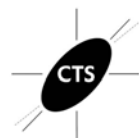
Tensile Stress at Yield - MPa

Report #118

2nd Qtr 2021

Grand Mean Sample C75: 45.270 MPa Grand Mean Sample C76: 45.291 MPa





Plastics Interlaboratory Testing Program

Report #118

Analysis 731

2nd Qtr 2021

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		34.45	-0.26	-0.24	35.83	1.21	1.08
2WKCE2		34.79	0.08	0.08	34.63	0.00	0.00
36RFWK		33.73	-0.97	-0.90	32.92	-1.71	-1.52
3BZUNG		35.28	0.57	0.53	35.97	1.34	1.20
43ZEV3		34.08	-0.63	-0.58	33.60	-1.02	-0.91
4TTW2C		35.09	0.39	0.36	35.01	0.38	0.34
6DHFQ4		35.39	0.68	0.63	36.70	2.07	1.84
6KXCEA		33.21	-1.49	-1.38	33.16	-1.46	-1.30
7MHKXA		33.84	-0.87	-0.81	34.14	-0.48	-0.43
82VDZ8		37.37	2.66	2.46	37.19	2.57	2.28
87TX7C		35.19	0.49	0.45	34.47	-0.15	-0.13
8B28BY		35.41	0.70	0.65	34.43	-0.19	-0.17
8HYXUP		34.90	0.20	0.18	34.92	0.29	0.26
9GJXBZ		36.17	1.47	1.36	35.89	1.27	1.13
9JTXGR		35.11	0.41	0.38	34.69	0.07	0.06
9LYFFN		33.73	-0.98	-0.91	33.95	-0.68	-0.60
9VAFE6		35.22	0.51	0.47	34.44	-0.19	-0.17
9WEEZX	*	33.02	-1.69	-1.56	34.67	0.05	0.04
9Y9YCX		33.30	-1.41	-1.30	33.16	-1.46	-1.30
ABXFFN	X	34.54	-0.16	-0.15	37.87	3.24	2.89
BRXPXZ		35.97	1.27	1.17	35.81	1.19	1.06
C6ZBZP		34.78	0.07	0.07	34.05	-0.57	-0.51
CVVPB3		34.88	0.17	0.16	33.12	-1.50	-1.34
DT6G68		34.86	0.16	0.15	34.35	-0.27	-0.24
E8ZKKH		34.47	-0.24	-0.22	35.61	0.98	0.88
ENPH3D		33.92	-0.78	-0.72	34.32	-0.31	-0.27
F7YU89		33.86	-0.85	-0.78	34.26	-0.36	-0.32
GGGV39		33.98	-0.72	-0.67	33.49	-1.13	-1.01
HT89FA		33.50	-1.21	-1.12	33.56	-1.07	-0.95
JGBFQJ		35.68	0.97	0.90	35.68	1.06	0.94
KV6848		33.31	-1.40	-1.29	33.45	-1.17	-1.04
KZDQ4L		35.42	0.72	0.66	34.97	0.35	0.31
L9QYBE		36.30	1.59	1.47	36.17	1.55	1.38
NDA26P		33.30	-1.41	-1.30	33.33	-1.30	-1.15
NH9C6V		32.62	-2.09	-1.93	32.82	-1.81	-1.61



Plastics Interlaboratory Testing Program

Report #118

Analysis 731

2nd Qtr 2021

Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NTNA7T		34.82	0.11	0.11	34.70	0.08	0.07
P3TGLT		35.08	0.37	0.34	34.24	-0.38	-0.34
QD8TEG		35.82	1.12	1.03	35.37	0.74	0.66
R7YXND		34.84	0.14	0.13	33.70	-0.92	-0.82
RJQFNC		33.78	-0.93	-0.86	32.86	-1.76	-1.57
RLTKU7		36.02	1.31	1.22	36.40	1.78	1.58
TBQH8M		35.94	1.23	1.14	36.00	1.38	1.22
TDZMPH		35.01	0.30	0.28	34.93	0.31	0.28
TNG8AE	X	17.04	-17.67	-16.35	16.48	-18.14	-16.15
VWLYR8		34.81	0.10	0.10	34.78	0.16	0.14
WKPA9D		34.96	0.26	0.24	34.34	-0.29	-0.26
WRQNWZ		36.63	1.92	1.78	36.60	1.97	1.75
YGX2T9		32.64	-2.07	-1.91	34.04	-0.58	-0.52

Summary Statistics

	Sample C75	Sample C76
Grand Means	34.706 MPa	34.624 MPa
Std Dev Btwn Labs	1.081 MPa	1.123 MPa

Statistics based on 46 of 48 reporting participants

Sample C75: ABS & Sample C76: ABS

Comments on Assigned Data Flags for Test #731

- ABXFFN (X) - Data for sample C76 are high. Inconsistent within the determinations of sample C76.
- TNG8AE (X) - Data for both samples are low. Possible Systematic Error.



Plastics Interlaboratory Testing Program

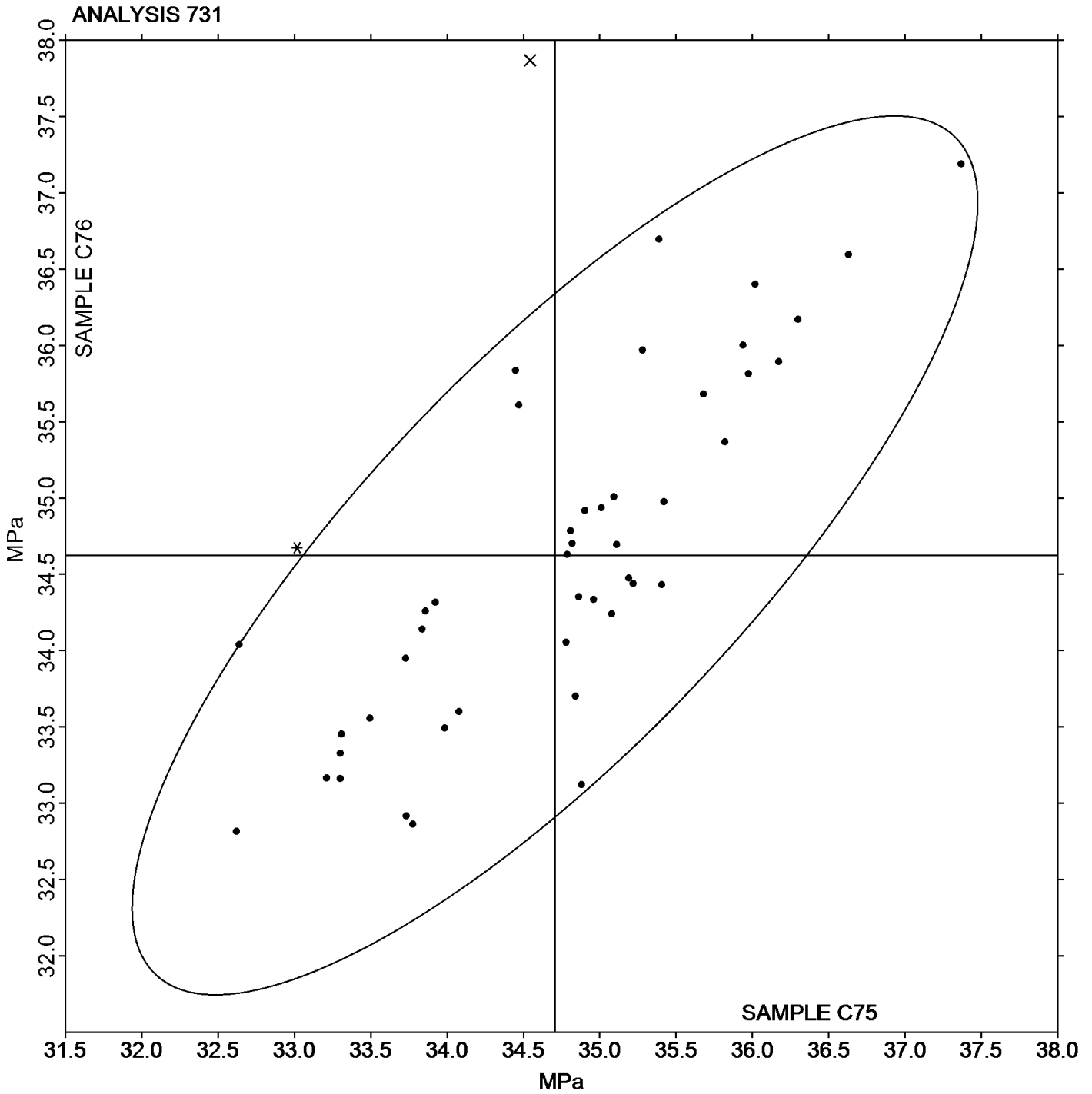
Analysis 731

Tensile Stress at Break - MPa

Report #118

2nd Qtr 2021

Grand Mean Sample C75: 34.706 MPa Grand Mean Sample C76: 34.624 MPa





Plastics Interlaboratory Testing Program

Report #118

Analysis 732

2nd Qtr 2021

Percent Strain at Yield

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23PXM6	*	2.734	0.301	2.90	2.676	0.238	2.30
2VQDJN		2.412	-0.021	-0.21	2.414	-0.024	-0.24
2WKCE2	X	1.666	-0.767	-7.41	1.478	-0.960	-9.29
36RFWK	X	5.304	2.871	27.71	5.452	3.014	29.16
3BZUNG		2.390	-0.043	-0.42	2.428	-0.010	-0.10
43ZEV3		2.354	-0.079	-0.77	2.346	-0.092	-0.89
4TTW2C		2.396	-0.037	-0.36	2.338	-0.100	-0.97
6DHFQ4		2.361	-0.072	-0.70	2.406	-0.032	-0.31
7MHKXA		2.390	-0.043	-0.42	2.392	-0.046	-0.45
82VDZ8	*	2.556	0.123	1.19	2.465	0.026	0.26
87TX7C		2.394	-0.040	-0.38	2.412	-0.027	-0.26
8B28BY		2.532	0.099	0.95	2.598	0.160	1.54
8HYXUP		2.426	-0.007	-0.07	2.422	-0.016	-0.16
9GJXBZ		2.560	0.127	1.22	2.558	0.120	1.16
9JTXGR		2.370	-0.063	-0.61	2.418	-0.020	-0.20
9LYFFN		2.348	-0.085	-0.82	2.390	-0.048	-0.47
9VAFE6		2.378	-0.055	-0.53	2.392	-0.046	-0.45
9WEEZX	X	3.250	0.817	7.88	3.414	0.976	9.44
9Y9YCX		2.300	-0.133	-1.29	2.320	-0.118	-1.15
ABXFFN		2.310	-0.123	-1.19	2.295	-0.143	-1.39
C6ZBZP		2.352	-0.081	-0.78	2.384	-0.054	-0.53
CVVPB3		2.658	0.225	2.17	2.692	0.254	2.45
E8ZKKH		2.418	-0.015	-0.15	2.446	0.008	0.07
ENPH3D		2.506	0.073	0.70	2.484	0.046	0.44
F7YU89		2.600	0.167	1.61	2.600	0.162	1.56
GGGV39		2.442	0.009	0.08	2.436	-0.002	-0.02
HT89FA		2.426	-0.007	-0.07	2.398	-0.040	-0.39
JGBFQJ		2.480	0.047	0.45	2.460	0.022	0.21
KV6848	*	2.396	-0.037	-0.36	2.294	-0.144	-1.40
KZDQ4L		2.332	-0.101	-0.98	2.322	-0.116	-1.13
L9QYBE		2.348	-0.085	-0.82	2.352	-0.086	-0.84
NDA26P		2.484	0.051	0.49	2.470	0.032	0.31
NH9C6V		2.638	0.205	1.98	2.634	0.196	1.89
NTNA7T		2.400	-0.033	-0.32	2.400	-0.038	-0.37
P3TGLT		2.362	-0.071	-0.69	2.394	-0.044	-0.43



Plastics Interlaboratory Testing Program

Report #118

Analysis 732

2nd Qtr 2021

Percent Strain at Yield

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QD8TEG		2.204	-0.229	-2.21	2.244	-0.194	-1.88
R7YXND		2.516	0.083	0.80	2.534	0.096	0.92
RJQFNC		2.320	-0.113	-1.09	2.356	-0.082	-0.80
RLTKU7		2.458	0.025	0.24	2.504	0.066	0.63
TBQH8M	X	3.680	1.247	12.03	3.800	1.362	13.18
TDZMPH		2.410	-0.024	-0.23	2.473	0.035	0.34
TNG8AE		2.382	-0.051	-0.50	2.374	-0.064	-0.62
TZAQP6		2.460	0.027	0.26	2.400	-0.038	-0.37
VWLYR8		2.354	-0.079	-0.77	2.344	-0.094	-0.91
W82BHB		2.406	-0.027	-0.26	2.394	-0.044	-0.43
WKPA9D		2.568	0.135	1.30	2.646	0.208	2.01
WRQNWZ		2.440	0.006	0.06	2.460	0.021	0.21
X8GQBH		2.398	-0.035	-0.34	2.434	-0.004	-0.04
YGX2T9		2.530	0.097	0.93	2.530	0.092	0.89

Summary Statistics		
	Sample C75	Sample C76
Grand Means	2.4333 Percent	2.4384 Percent
Stnd Dev Btwn Labs	0.1036 Percent	0.1033 Percent

Statistics based on 45 of 49 reporting participants

Sample C75: ABS & Sample C76: ABS

Comments on Assigned Data Flags for Test #732

- 2WKCE2 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 36RFWK (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 9WEEZX (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample C76.
- TBQH8M (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.



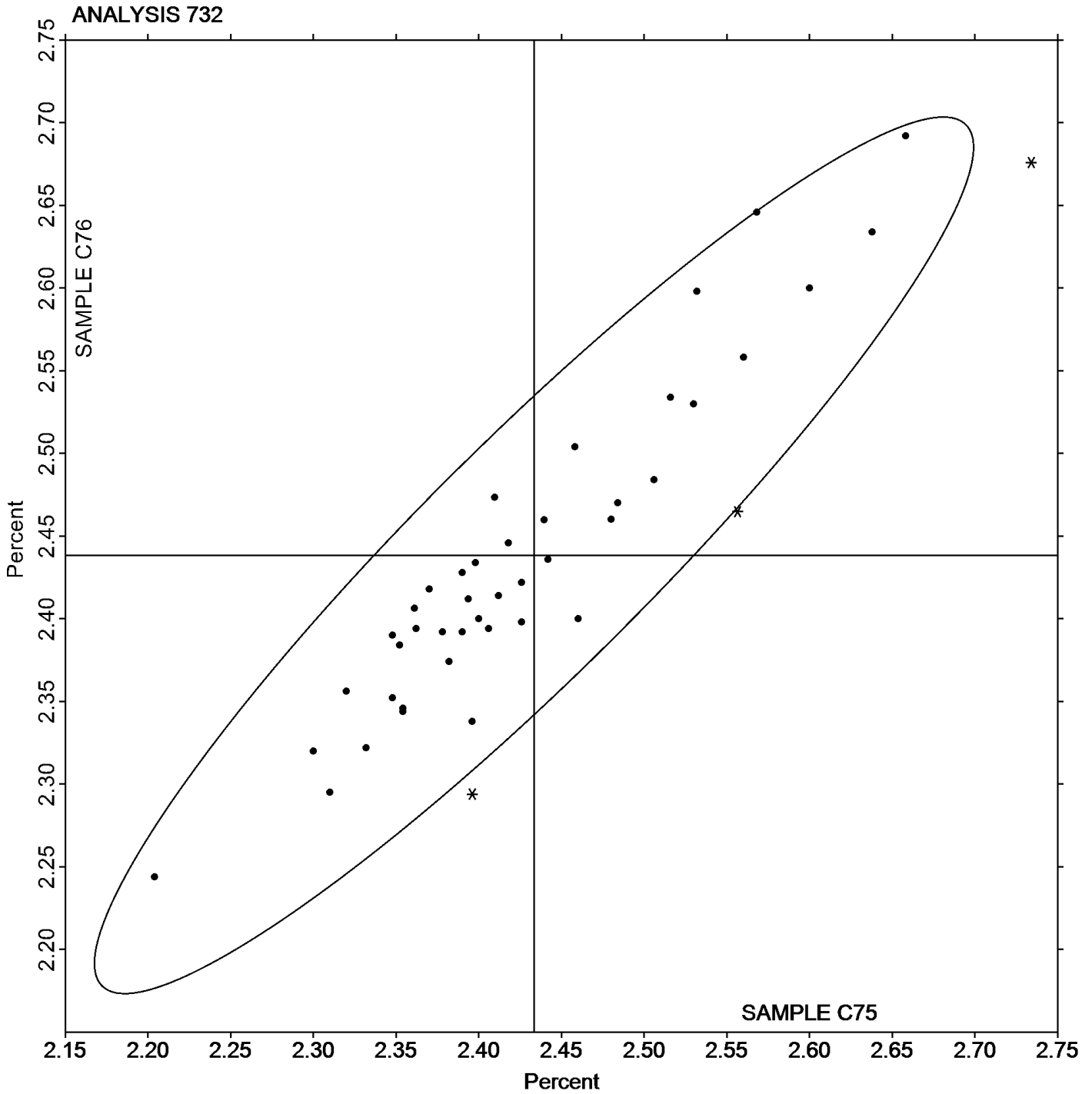
Plastics Interlaboratory Testing Program

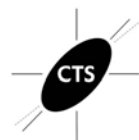
Analysis 732 Percent Strain at Yield

Report #118

2nd Qtr 2021

Grand Mean Sample C75: 2.4333 Percent Grand Mean Sample C76: 2.4384 Percent





Plastics Interlaboratory Testing Program

Report #118

Analysis 734

2nd Qtr 2021

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		2,392	-26	-0.26	2,398	-21	-0.21
2WKCE2		2,551	132	1.28	2,500	82	0.83
36RFWK		2,460	42	0.40	2,461	43	0.44
3BZUNG		2,449	31	0.30	2,469	51	0.51
43ZEV3		2,434	16	0.15	2,412	-6	-0.06
4TTW2C		2,458	40	0.38	2,442	24	0.24
6DHFQ4		2,289	-129	-1.25	2,325	-94	-0.94
7MHKXA		2,377	-42	-0.40	2,398	-21	-0.21
87TX7C		2,374	-44	-0.43	2,362	-56	-0.56
8B28BY	X	2,838	420	4.06	2,337	-81	-0.82
8HYXUP		2,393	-25	-0.25	2,357	-61	-0.62
9GJXBZ		2,510	92	0.88	2,493	75	0.75
9JTXGR		2,448	30	0.29	2,425	7	0.07
9LYFFN		2,478	59	0.57	2,465	47	0.47
9WEEZX	X	1,380	-1,039	-10.04	1,541	-878	-8.85
9Y9YCX		2,520	101	0.98	2,512	94	0.95
ABXFFN		2,375	-44	-0.42	2,383	-36	-0.36
C6ZBZP		2,476	57	0.55	2,516	97	0.98
CVVPB3		2,425	7	0.07	2,432	14	0.14
E8ZKKH		2,395	-24	-0.23	2,413	-5	-0.05
ENPH3D	X	2,512	94	0.91	1,997	-421	-4.24
F7YU89		2,282	-136	-1.32	2,260	-158	-1.60
GBWNQV	*	2,526	108	1.04	2,420	2	0.02
GGGV39		2,341	-77	-0.75	2,317	-101	-1.02
HT89FA		2,432	14	0.14	2,470	52	0.52
JGBFQJ		2,368	-50	-0.49	2,366	-52	-0.53
KV6848		2,285	-133	-1.29	2,329	-89	-0.90
KZDQ4L		2,507	88	0.85	2,541	123	1.24
L9QYBE		2,542	124	1.19	2,557	138	1.39
NDA26P		2,213	-205	-1.98	2,259	-159	-1.61
NH9C6V	X	2,034	-385	-3.72	2,032	-386	-3.89
NTNA7T		2,350	-68	-0.66	2,355	-63	-0.64
P3TGLT		2,562	143	1.39	2,530	112	1.12
QD8TEG	*	2,483	65	0.63	2,560	142	1.43
QK98YH		2,385	-34	-0.33	2,380	-38	-0.38



Plastics Interlaboratory Testing Program

Report #118

Analysis 734

2nd Qtr 2021

Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C75			Sample C76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R7YXND		2,220	-198	-1.91	2,243	-175	-1.77
RJQFNC		2,515	97	0.94	2,480	62	0.63
RLTKU7		2,569	151	1.46	2,610	192	1.93
TBQH8M		2,478	59	0.57	2,480	62	0.63
TDZMPH		2,226	-193	-1.86	2,192	-226	-2.28
TNG8AE		2,475	57	0.55	2,467	49	0.49
TZAQP6		2,259	-159	-1.54	2,291	-128	-1.29
VWLYR8		2,656	238	2.30	2,606	188	1.89
WKPA9D	X	2,429	11	0.11	2,602	183	1.85
WRQNWZ		2,334	-85	-0.82	2,332	-86	-0.87
X8GQBH		2,321	-97	-0.94	2,308	-111	-1.12
YGX2T9		2,439	21	0.20	2,452	34	0.34

Summary Statistics		
	Sample C75	Sample C76
Grand Means	2,418.4 MPa	2,418.3 MPa
Std Dev Btwn Labs	103.5 MPa	99.2 MPa
Statistics based on 42 of 47 reporting participants		

Sample C75: ABS & Sample C76: ABS

Comments on Assigned Data Flags for Test #734

- NH9C6V (X) - Data for both samples are low. Possible Systematic Error.
- WKPA9D (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- ENPH3D (X) - Data for sample C76 are low. Inconsistent within the determinations of sample C75.
- 8B28BY (X) - Data for sample C75 are high. Inconsistent within the determinations of both samples.
- 9WEEZX (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



Plastics Interlaboratory Testing Program

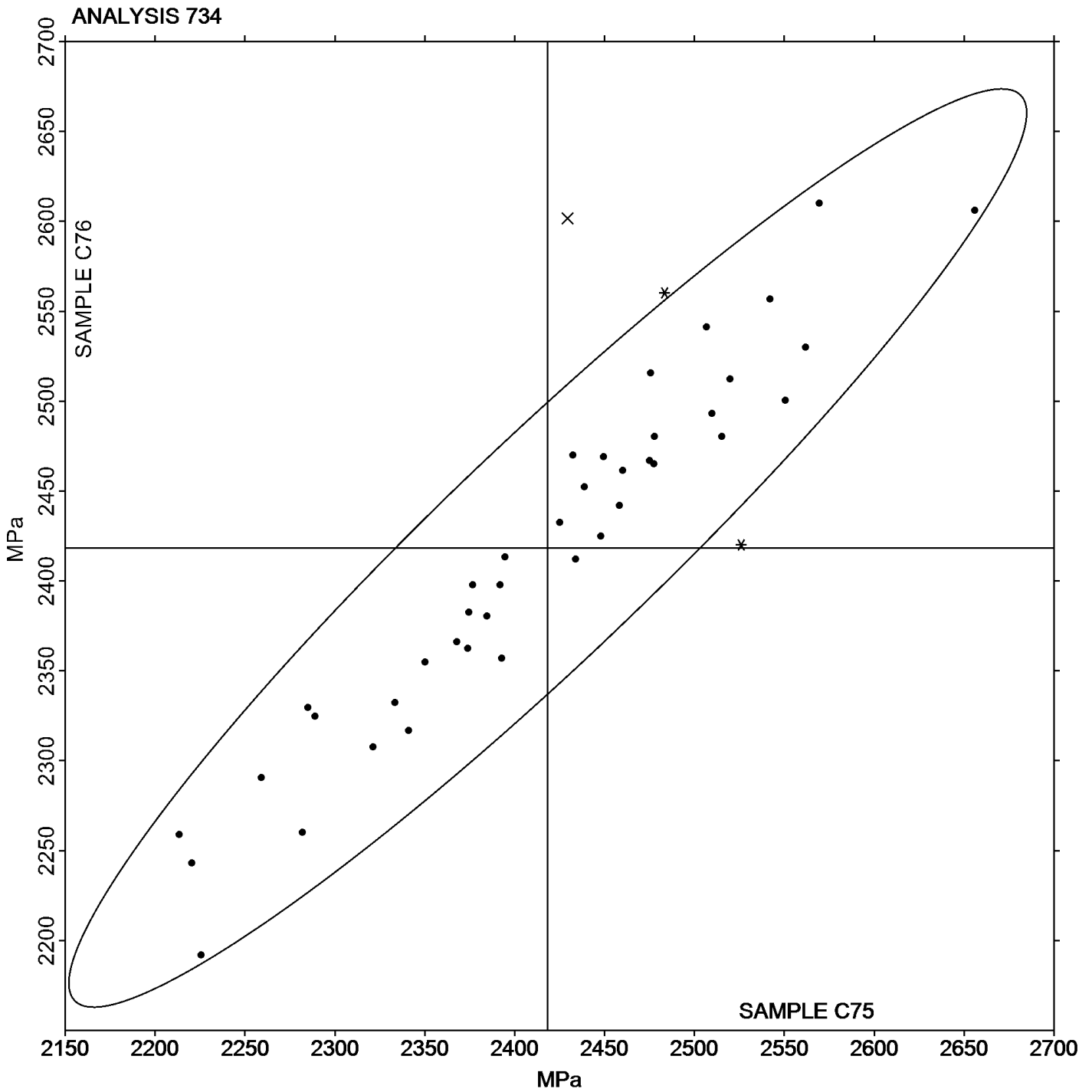
Report #118

Analysis 734

2nd Qtr 2021

Modulus of Elasticity - MPa

Grand Mean Sample C75: 2,418.39 MPa Grand Mean Sample C76: 2,418.30 MPa





Plastics Interlaboratory Testing Program

Report #118

Analysis 736

2nd Qtr 2021

Flexural Modulus - MPa

WebCode	Data Flag	Sample K75			Sample K76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		2,590	183	2.17	2,597	189	2.25
2WKCE2		2,421	14	0.16	2,425	17	0.20
36RFWK		2,508	100	1.19	2,504	96	1.14
43ZEV3		2,351	-57	-0.67	2,331	-77	-0.91
6DHFQ4		2,282	-125	-1.49	2,279	-129	-1.54
6KXCEA		2,447	40	0.47	2,449	41	0.48
7MHKXA		2,419	11	0.13	2,401	-7	-0.08
87TX7C		2,471	63	0.75	2,450	42	0.50
8B28BY		2,458	51	0.60	2,443	35	0.42
8HYXUP		2,571	164	1.95	2,554	146	1.74
9GJXBZ		2,488	81	0.96	2,502	94	1.12
9JTXGR		2,415	7	0.08	2,459	51	0.61
9LYFFN		2,364	-43	-0.51	2,361	-47	-0.56
9VAFE6		2,432	25	0.30	2,450	42	0.50
9WEEZX		2,392	-16	-0.19	2,418	10	0.12
9Y9YCX		2,312	-96	-1.14	2,296	-112	-1.33
ABXFFN		2,426	18	0.22	2,426	18	0.22
BN2XRN		2,376	-31	-0.37	2,376	-32	-0.38
C6GQTX		2,480	73	0.86	2,480	72	0.86
CVVPB3		2,619	212	2.51	2,604	196	2.33
DT6G68		2,419	12	0.14	2,385	-23	-0.28
F7YU89		2,420	13	0.15	2,376	-32	-0.38
GGGV39		2,441	33	0.40	2,444	36	0.43
HT89FA		2,357	-51	-0.60	2,359	-49	-0.58
JGBFQJ		2,441	33	0.40	2,440	32	0.38
KV6848		2,386	-21	-0.25	2,396	-12	-0.14
KZDQ4L	X	2,524	117	1.38	2,632	224	2.66
L9QYBE		2,438	30	0.36	2,428	20	0.24
NDA26P		2,443	36	0.42	2,435	27	0.32
NTNA7T		2,397	-10	-0.12	2,383	-25	-0.30
NZPJCK		2,273	-134	-1.60	2,274	-134	-1.60
P3TGLT		2,381	-27	-0.32	2,397	-11	-0.14
Q2AAGM		2,262	-146	-1.73	2,271	-137	-1.63
QD8TEG		2,379	-28	-0.33	2,335	-73	-0.87
QK98YH		2,383	-24	-0.29	2,366	-42	-0.50



Plastics Interlaboratory Testing Program

Report #118

Analysis 736

2nd Qtr 2021

Flexural Modulus - MPa

WebCode	Data Flag	Sample K75			Sample K76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RJQFNC		2,310	-97	-1.15	2,355	-53	-0.63
RLTKU7		2,303	-105	-1.24	2,281	-127	-1.52
TBQH8M	*	2,332	-76	-0.90	2,388	-20	-0.24
TDZMPH		2,293	-115	-1.36	2,296	-112	-1.33
TNG8AE		2,458	51	0.60	2,473	65	0.77
TZAQP6		2,256	-151	-1.80	2,277	-131	-1.56
VWLYR8	*	2,486	79	0.94	2,536	128	1.53
W82BHB		2,437	30	0.36	2,423	15	0.18
WKPA9D		2,382	-25	-0.30	2,390	-18	-0.21
WRQNWZ	X	2,833	425	5.05	2,558	150	1.79
X8GQBH		2,311	-96	-1.15	2,315	-93	-1.10
XY6WVF		2,384	-23	-0.28	2,394	-14	-0.17
YGX2T9		2,550	142	1.69	2,548	140	1.66

Summary Statistics

	Sample K75	Sample K76
Grand Means	2,407.5 MPa	2,408.1 MPa
Std Dev Btwn Labs	84.2 MPa	84.0 MPa

Statistics based on 46 of 48 reporting participants

Sample K75: ABS & Sample K76: ABS

Comments on Assigned Data Flags for Test #736

WRQNWZ (X) - Data for sample K75 are high.

KZDQ4L (X) - Inconsistent in testing between samples.



Plastics Interlaboratory Testing Program

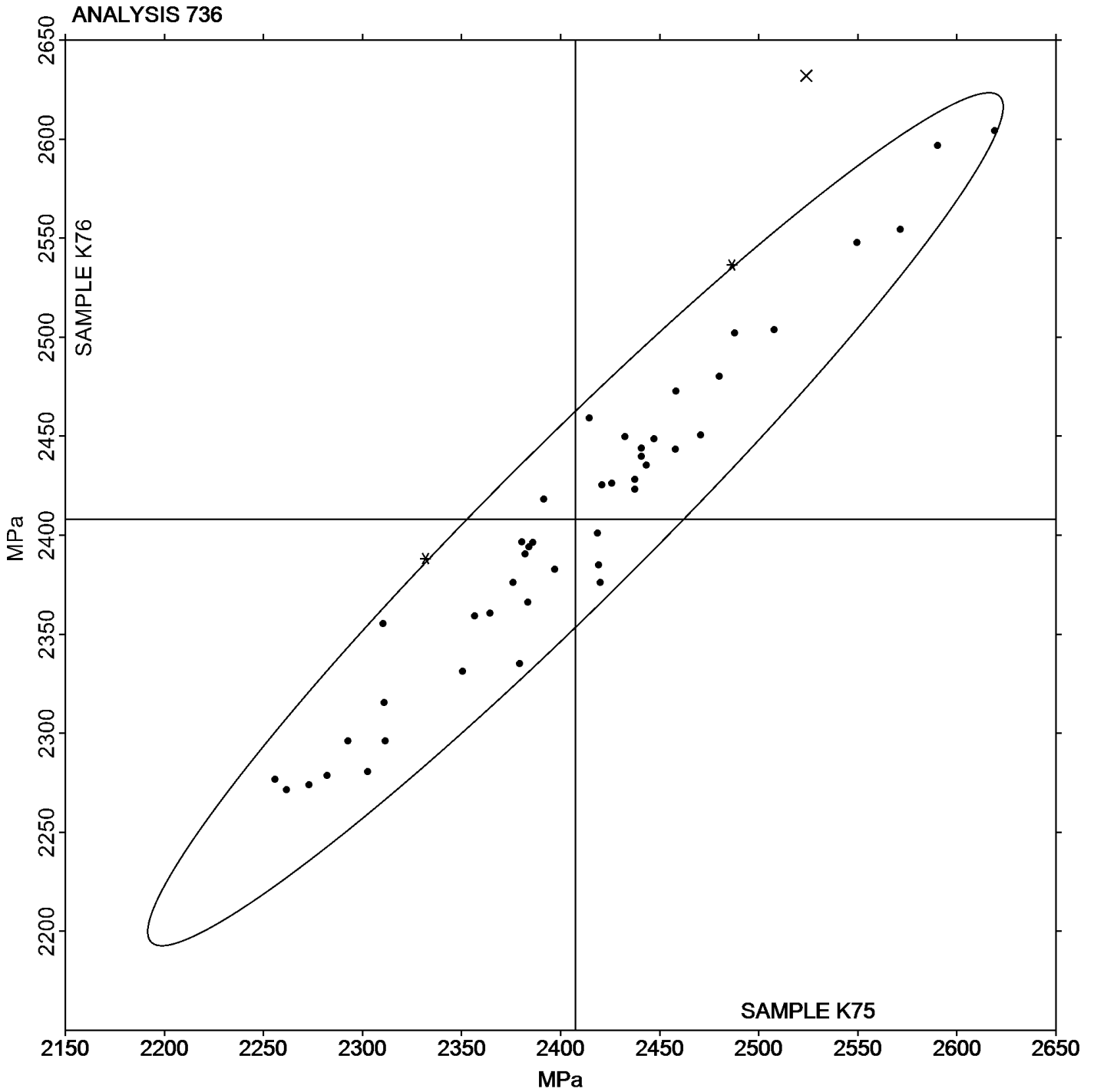
Analysis 736

Flexural Modulus - MPa

Report #118

2nd Qtr 2021

Grand Mean Sample K75: 2,407.47 MPa Grand Mean Sample K76: 2,408.06 MPa





Plastics Interlaboratory Testing Program

Report #118

Analysis 737

2nd Qtr 2021

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K75			Sample K76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		71.57	2.48	1.65	71.39	2.16	1.22
2WKCE2		68.16	-0.94	-0.62	68.43	-0.81	-0.46
36RFWK		70.42	1.32	0.88	70.25	1.01	0.57
43ZEV3		67.06	-2.03	-1.36	65.64	-3.59	-2.03
6DHFQ4		69.21	0.11	0.08	69.05	-0.19	-0.11
7MHKXA		68.56	-0.53	-0.36	68.68	-0.55	-0.31
87TX7C		68.57	-0.52	-0.35	68.19	-1.05	-0.59
8B28BY		70.08	0.98	0.65	70.72	1.49	0.84
8HYXUP		71.09	2.00	1.33	70.68	1.44	0.82
9GJXBZ		69.68	0.59	0.39	70.02	0.79	0.44
9JTXGR		71.80	2.71	1.80	72.92	3.69	2.08
9LYFFN		69.41	0.31	0.21	69.43	0.20	0.11
9VAFE6		66.53	-2.56	-1.71	67.08	-2.16	-1.22
9WEEZX		69.64	0.55	0.36	69.66	0.42	0.24
9Y9YCX		70.01	0.91	0.61	70.09	0.85	0.48
BN2XRN		68.45	-0.65	-0.43	68.71	-0.52	-0.29
CVVPB3		66.68	-2.41	-1.61	65.46	-3.77	-2.13
DT6G68		68.92	-0.18	-0.12	68.75	-0.48	-0.27
F7YU89		71.38	2.29	1.53	71.20	1.97	1.11
GGGV39		69.76	0.66	0.44	69.90	0.67	0.38
HT89FA	*	66.19	-2.91	-1.94	67.69	-1.55	-0.87
JGBFQJ		68.75	-0.34	-0.23	69.11	-0.12	-0.07
KV6848		67.65	-1.45	-0.97	67.52	-1.71	-0.97
KZDQ4L	*	71.22	2.13	1.42	73.19	3.95	2.23
L9QYBE		68.40	-0.69	-0.46	68.36	-0.88	-0.49
NDA26P		68.01	-1.08	-0.72	67.98	-1.25	-0.71
NTNA7T		68.12	-0.97	-0.65	67.76	-1.47	-0.83
NZPJCK		66.76	-2.34	-1.56	67.00	-2.23	-1.26
P3TGTL		70.02	0.92	0.62	70.02	0.79	0.45
QD8TEG		69.96	0.87	0.58	70.27	1.03	0.58
RJQFNC		69.38	0.29	0.19	69.95	0.72	0.41
RLTKU7		68.46	-0.63	-0.42	67.70	-1.53	-0.87
TBQH8M		69.89	0.79	0.53	69.34	0.11	0.06
TDZMPH		67.42	-1.67	-1.12	67.47	-1.76	-1.00
TNG8AE		70.02	0.93	0.62	70.08	0.85	0.48



Plastics Interlaboratory Testing Program

Report #118

Analysis 737

2nd Qtr 2021

Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K75			Sample K76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
VWLYR8		70.76	1.67	1.11	71.41	2.18	1.23
WRQNWZ	X	69.29	0.19	0.13	65.21	-4.02	-2.27
WTJDGG		70.36	1.26	0.84	71.82	2.59	1.46
X8GQBH		67.27	-1.82	-1.22	67.95	-1.28	-0.72

Summary Statistics		Sample K75	Sample K76
Grand Means		69.095 MPa	69.233 MPa
Stnd Dev Btwn Labs		1.499 MPa	1.769 MPa
Statistics based on 38 of 39 reporting participants			

Sample K75: ABS & Sample K76: ABS

Comments on Assigned Data Flags for Test #737

WRQNWZ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample K76.



Plastics Interlaboratory Testing Program

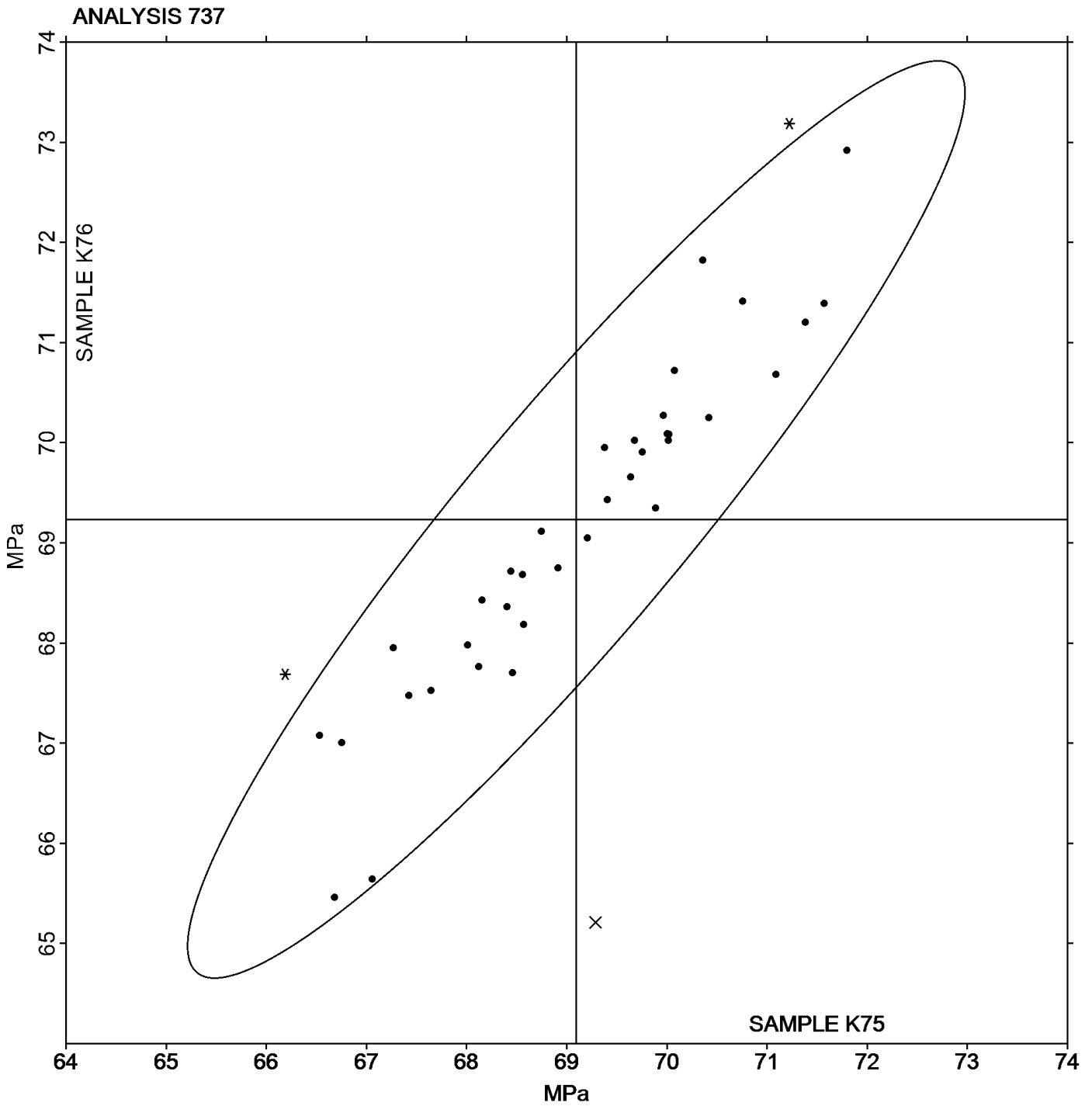
Report #118

Analysis 737

2nd Qtr 2021

Flexural Stress at 3.5% Strain - MPa

Grand Mean Sample K75: 69.095 MPa Grand Mean Sample K76: 69.233 MPa





Plastics Interlaboratory Testing Program

Report #118

Analysis 738

2nd Qtr 2021

Flexural Stress at Yield - MPa

WebCode	Data Flag	Sample K75			Sample K76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2VQDJN		72.61	2.20	1.40	72.54	2.05	1.14
2WKCE2		69.55	-0.86	-0.55	70.08	-0.41	-0.23
36RFWK		71.62	1.21	0.77	71.20	0.71	0.39
43ZEV3		69.30	-1.11	-0.71	68.16	-2.33	-1.29
6DHFQ4		70.97	0.56	0.35	71.02	0.53	0.29
7MHKXA		69.38	-1.03	-0.66	69.53	-0.96	-0.53
87TX7C		70.48	0.07	0.04	70.09	-0.40	-0.22
8B28BY		71.43	1.02	0.65	72.37	1.89	1.05
8HYXUP		72.71	2.30	1.47	72.40	1.91	1.06
9LYFFN		70.67	0.26	0.17	70.85	0.36	0.20
9VAFE6		67.87	-2.54	-1.62	68.43	-2.06	-1.15
9WEEZX		70.96	0.55	0.35	70.93	0.44	0.25
9Y9YCX		71.35	0.94	0.60	71.51	1.03	0.57
ABXFFN		70.20	-0.21	-0.13	71.00	0.51	0.28
BN2XRN		69.59	-0.82	-0.52	69.84	-0.65	-0.36
CVVPB3	*	67.28	-3.13	-2.00	66.02	-4.47	-2.48
DT6G68		70.11	-0.30	-0.19	70.22	-0.26	-0.15
F7YU89		73.13	2.72	1.73	73.14	2.65	1.47
HT89FA	M	No data reported for this sample			69.77	-0.72	-0.40
JGBFQJ		71.42	1.01	0.64	72.09	1.60	0.89
KV6848		68.66	-1.75	-1.12	68.48	-2.01	-1.12
KZDQ4L	X	73.28	2.87	1.83	75.91	5.42	3.01
NDA26P		69.40	-1.01	-0.65	69.69	-0.80	-0.45
NTNA7T		70.60	0.19	0.12	69.62	-0.87	-0.48
NZPJCK		68.51	-1.90	-1.21	68.80	-1.69	-0.94
P3TGLT		71.96	1.55	0.99	72.70	2.21	1.23
QD8TEG		71.27	0.86	0.55	71.82	1.33	0.74
QK98YH		67.41	-3.00	-1.91	67.74	-2.75	-1.53
RJQFNC		71.90	1.49	0.95	72.97	2.49	1.38
RLTKU7		69.08	-1.33	-0.85	68.18	-2.31	-1.28
TNG8AE		71.02	0.61	0.39	71.06	0.57	0.32
VWLYR8		73.00	2.59	1.65	73.38	2.89	1.61
W82BHB		68.87	-1.54	-0.98	68.85	-1.64	-0.91
YGX2T9		70.82	0.41	0.26	70.94	0.45	0.25



Plastics Interlaboratory Testing Program

Report #118

Analysis 738

2nd Qtr 2021

Flexural Stress at Yield - MPa

Summary Statistics	<u>Sample K75</u>	<u>Sample K76</u>
Grand Means	70.410 MPa	70.489 MPa
Stnd Dev Btwn Labs	1.568 MPa	1.799 MPa

Statistics based on 32 of 34 reporting participants

Sample K75: ABS & Sample K76: ABS

Comments on Assigned Data Flags for Test #738

HT89FA (M) - Participant did not submit data for sample K75.

KZDQ4L (X) - Data for sample K76 are high.



Plastics Interlaboratory Testing Program

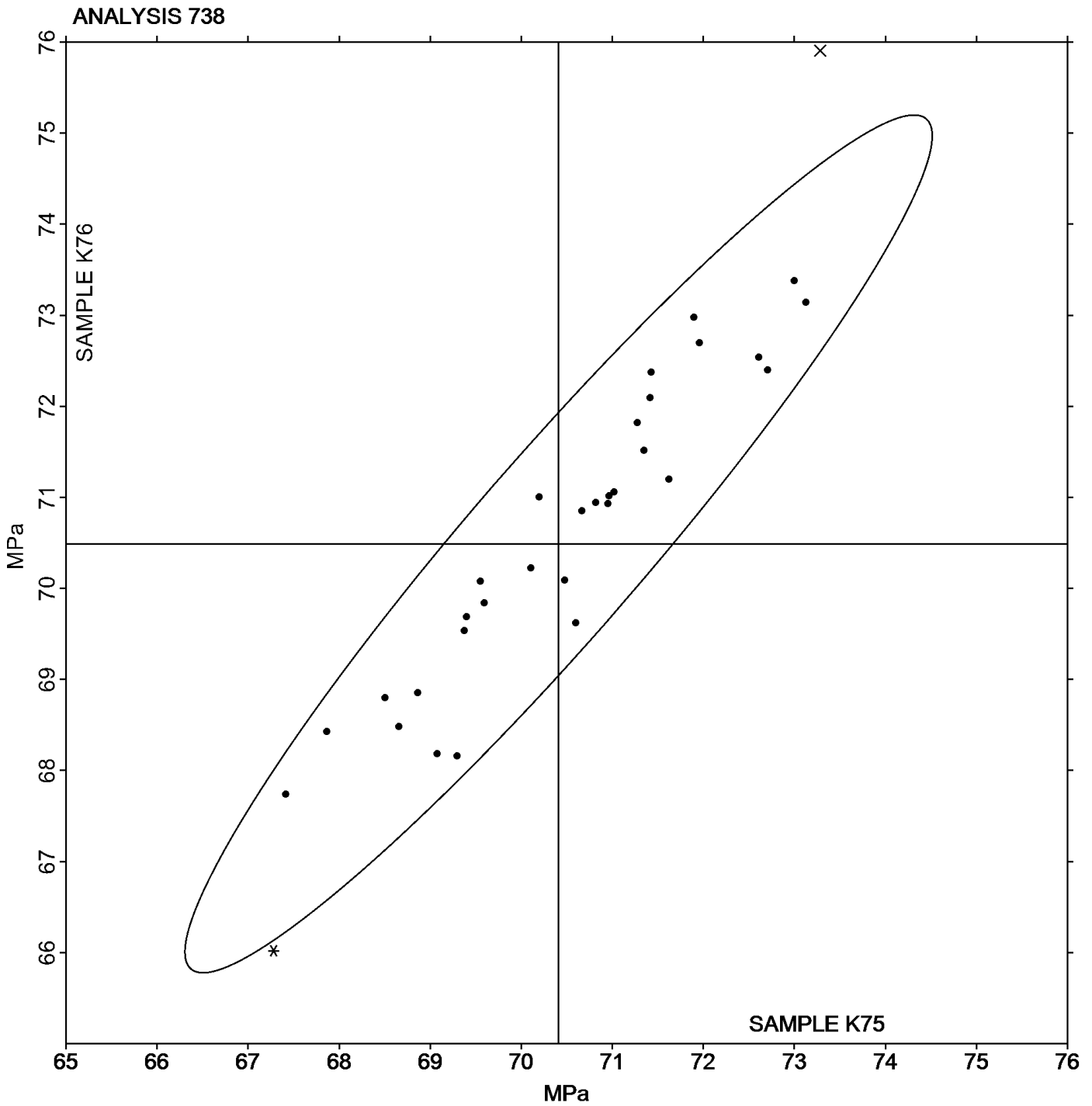
Analysis 738

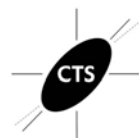
Flexural Stress at Yield - MPa

Report #118

2nd Qtr 2021

Grand Mean Sample K75: 70.410 MPa Grand Mean Sample K76: 70.489 MPa





Plastics Interlaboratory Testing Program

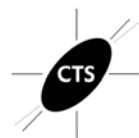
Report #118

Analysis 750

2nd Qtr 2021

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

WebCode	Data Flag	Sample X75			Sample X76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2QG9P4	*	12.35	-1.59	-1.60	13.24	-0.55	-0.55	TO
36RFWK		13.72	-0.22	-0.23	13.21	-0.58	-0.58	GO
37NNBV		13.90	-0.04	-0.04	13.55	-0.24	-0.24	TO
43ZEV3		13.68	-0.26	-0.26	13.53	-0.26	-0.26	WZ
4HU4QZ		15.69	1.75	1.76	15.55	1.76	1.76	XX
62JXWF	*	16.85	2.91	2.93	16.65	2.86	2.86	TO
64A9LM	M	No data reported for this sample			11.62	-2.17	-2.17	TM
6GHNWY		15.41	1.47	1.48	15.15	1.36	1.36	RR
6KG8UQ		13.05	-0.89	-0.90	12.40	-1.39	-1.39	XX
6KXCEA		16.30	2.36	2.38	15.80	2.01	2.01	TO
6Q7MJX		14.00	0.06	0.06	13.90	0.11	0.11	DY
7DURMY	X	13.50	-0.44	-0.44	17.40	3.61	3.61	TY
7MHKXA		13.05	-0.89	-0.90	12.50	-1.29	-1.29	WZ
8B28BY		13.88	-0.06	-0.06	14.02	0.23	0.23	TO
8D8JDU		14.75	0.81	0.82	13.75	-0.04	-0.04	TO
8HYXUP		13.55	-0.39	-0.39	13.80	0.01	0.01	KA
8LLCM6	X	15.84	1.90	1.92	16.65	2.86	2.86	TO
8YEUHX	X	14.36	0.42	0.42	16.90	3.11	3.11	TO
8ZHQHT		14.14	0.20	0.20	14.26	0.47	0.47	TO
9ANV9N		13.40	-0.54	-0.54	12.85	-0.94	-0.94	DY
9G2Y29		13.25	-0.69	-0.69	12.95	-0.84	-0.84	TO
9GJXBZ		14.03	0.09	0.09	13.88	0.09	0.09	XX
9JTXGR		12.90	-1.04	-1.05	13.20	-0.59	-0.59	DY
9K36HZ		13.52	-0.42	-0.43	13.62	-0.17	-0.17	DY
9NRAFD		13.81	-0.13	-0.13	13.94	0.15	0.15	TO
9VAFE6		13.55	-0.39	-0.39	13.55	-0.24	-0.24	TO
9WEEZX		13.48	-0.46	-0.46	13.38	-0.41	-0.41	TO
9Y9YCX		13.82	-0.12	-0.12	13.66	-0.13	-0.13	WZ
A29L4R		14.55	0.61	0.62	14.45	0.66	0.66	DY
ABXFFN		13.40	-0.54	-0.54	13.70	-0.09	-0.09	TO
BRXPXZ		14.30	0.36	0.36	14.30	0.51	0.51	TO
C224BL		13.90	-0.04	-0.04	13.90	0.11	0.11	TO
C6GQTX		13.05	-0.89	-0.90	13.64	-0.15	-0.15	TO
CBBNJA		13.15	-0.79	-0.79	12.95	-0.84	-0.84	DY
CH8FR4		13.20	-0.74	-0.74	13.35	-0.44	-0.44	DY



Plastics Interlaboratory Testing Program

Report #118

Analysis 750

2nd Qtr 2021

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

WebCode	Data Flag	Sample X75			Sample X76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
CVRZ9Q		15.60	1.66	1.67	15.00	1.21	1.21	DY
CVVPB3		14.52	0.58	0.58	14.14	0.35	0.35	TO
D2VBUP		13.29	-0.65	-0.66	13.03	-0.76	-0.76	CE
DT6G68		13.96	0.02	0.02	14.00	0.21	0.21	DY
E8ZKKH		12.75	-1.19	-1.20	12.50	-1.29	-1.29	TO
EFE9JQ		12.76	-1.18	-1.19	12.76	-1.03	-1.03	CE
EHZ3BK		14.76	0.82	0.82	14.52	0.73	0.73	TO
EP2CKX		12.01	-1.93	-1.94	11.77	-2.02	-2.02	CE
EPWZYM	*	16.05	2.11	2.13	16.55	2.76	2.76	XX
EPYKU3		13.45	-0.49	-0.49	13.45	-0.34	-0.34	TO
EXP8GT		13.74	-0.20	-0.20	13.39	-0.40	-0.40	TO
F6KMLQ	*	11.10	-2.84	-2.86	11.11	-2.68	-2.68	TO
F7YU89		13.42	-0.52	-0.52	13.36	-0.43	-0.43	GO
FALFXA		13.85	-0.09	-0.09	13.15	-0.64	-0.64	TO
GGGV39		13.33	-0.61	-0.61	13.17	-0.62	-0.62	DY
GJMFQ9		13.25	-0.69	-0.69	12.95	-0.84	-0.84	TO
HH4UUC	X	14.39	0.45	0.45	12.81	-0.98	-0.98	TO
JGBFQJ		13.32	-0.62	-0.62	13.06	-0.73	-0.73	TO
JWL4V8		14.75	0.81	0.82	14.45	0.66	0.66	TO
KV6848		13.49	-0.45	-0.45	13.24	-0.55	-0.55	TY
KY7DHD		13.88	-0.06	-0.06	13.93	0.14	0.14	TO
KZDQ4L		13.52	-0.42	-0.43	13.72	-0.07	-0.07	TO
L9QYBE		12.60	-1.34	-1.35	12.79	-1.00	-1.00	TO
M3UWET		15.50	1.56	1.57	15.50	1.71	1.71	TO
MEP3EH		13.37	-0.57	-0.57	13.66	-0.13	-0.13	WZ
NDA26P		12.83	-1.11	-1.12	12.92	-0.87	-0.87	GO
NH9C6V		14.25	0.31	0.31	13.63	-0.16	-0.16	WZ
NTNA7T		14.07	0.13	0.13	14.63	0.84	0.84	GO
NXH46E		12.37	-1.57	-1.58	12.11	-1.68	-1.69	TO
P3TGLT		12.55	-1.39	-1.40	12.55	-1.24	-1.24	DY
PKN8GL	X	14.10	0.16	0.16	15.52	1.73	1.73	CE
Q2AAGM		15.30	1.36	1.37	15.48	1.69	1.69	XX
QD8TEG		14.15	0.21	0.21	13.40	-0.39	-0.39	TO
QK98YH		13.75	-0.19	-0.19	13.55	-0.24	-0.24	TO
RFR9Y9		15.51	1.57	1.58	15.46	1.67	1.67	XX



Plastics Interlaboratory Testing Program

Report #118

Analysis 750

2nd Qtr 2021

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

WebCode	Data Flag	Sample X75			Sample X76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RHU8A2		13.96	0.02	0.02	13.85	0.06	0.06	TO
RJQFNC	X	14.84	0.91	0.91	13.27	-0.52	-0.52	TO
RRG3B3		14.49	0.55	0.55	13.85	0.06	0.06	TO
RRZACD	X	17.98	4.04	4.07	17.59	3.80	3.80	TO
TBQH8M		15.10	1.16	1.17	15.05	1.26	1.26	DY
THNC4Z		13.85	-0.09	-0.09	13.00	-0.79	-0.79	TO
UXG8D7		14.22	0.28	0.28	14.28	0.49	0.49	TO
V7AUT9		14.25	0.31	0.31	14.60	0.81	0.81	CE
VWLYR8		13.95	0.01	0.01	13.90	0.11	0.11	TO
W82BHB		13.96	0.02	0.02	13.96	0.17	0.17	TO
WBUE33		14.57	0.63	0.64	13.88	0.09	0.09	XX
WN7L49		14.26	0.32	0.33	13.97	0.18	0.18	TO
WRQNWZ		14.11	0.17	0.17	13.55	-0.24	-0.24	DY
WXWHTG	*	13.74	-0.20	-0.20	12.59	-1.20	-1.20	TO
XAXHX6		14.50	0.56	0.57	14.79	1.00	1.00	TO
XY6WVF		14.30	0.36	0.36	14.45	0.66	0.66	XX
YC38XT		16.00	2.06	2.08	15.62	1.83	1.83	KA
YL99E8		15.15	1.21	1.22	14.90	1.11	1.11	TO
ZPQMMD		14.00	0.06	0.06	13.25	-0.54	-0.54	TO

Summary Statistics		
	Sample X75	Sample X76
Grand Means	13.939 grams/10 mins	13.789 grams/10 mins
Stnd Dev Btwn Labs	0.993 grams/10 mins	1.000 grams/10 mins
Statistics based on 81 of 89 reporting participants		

Sample X75: PP & Sample X76: PP



Plastics Interlaboratory Testing Program

Report #118

Analysis 750

2nd Qtr 2021

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

Comments on Assigned Data Flags for Test #750

- 7DURMY (X) - Data for sample X76 are high.
- 8YEUHX (X) - Data for sample X76 are high.
- RJQFNC (X) - Inconsistent in testing between samples.
- PKN8GL (X) - Inconsistent in testing between samples.
- HH4UUC (X) - Inconsistent in testing between samples.
- 64A9LM (M) - Participant did not submit data for sample X75.
- RRZACD (X) - Data for both samples are high. Possible Systematic Error.
- 8LLCM6 (X) - Data for sample X76 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample X75			Sample X76			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Procedure A of ASTM D1238	13.931	1.059	-0.01	13.738	1.035	-0.05	51/56
Procedure B of ASTM D1238	14.202	0.785	0.26	14.212	0.772	0.42	14/16
Procedure A of ISO 1133	13.417	0.681	-0.52	13.232	0.761	-0.56	9/10
Procedure B of ISO 1133	13.550	0.562	-0.39	13.446	0.723	-0.34	5/5

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

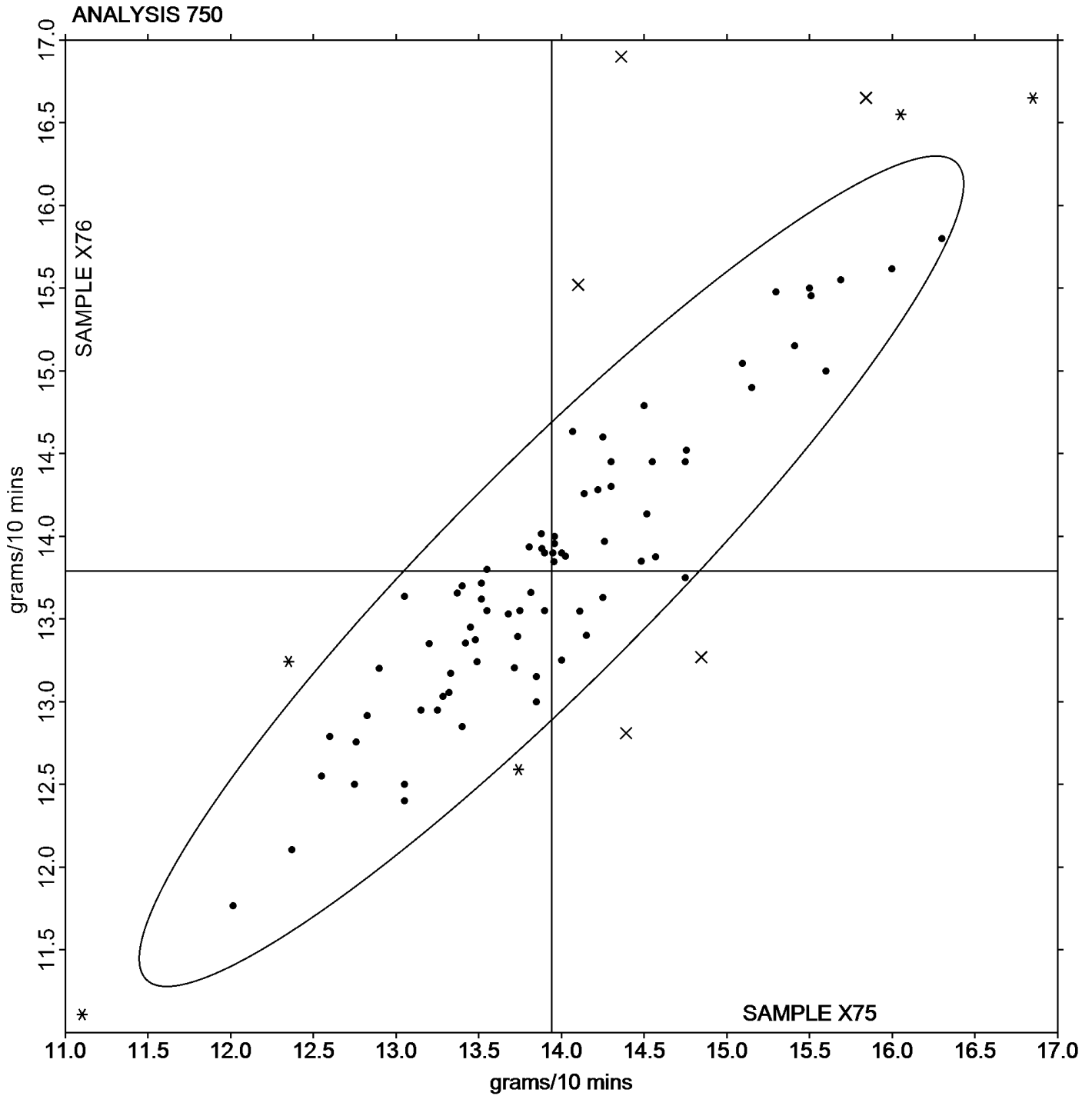
Analysis 750

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

Report #118

2nd Qtr 2021

Grand Mean Sample X75: 13.939 grams/10 mins Grand Mean Sample X76: 13.789 grams/10 mins





Plastics Interlaboratory Testing Program

Report #118

Analysis 755

2nd Qtr 2021

Moisture Content of Plastics

WebCode	Data Flag	Sample Y75			Sample Y76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2QG9P4	*	0.15333	0.00782	0.33	0.13000	-0.01303	-0.54	ML
37NNBV		0.17250	0.02699	1.13	0.16550	0.02247	0.94	ML
62JXWF		0.15467	0.00916	0.38	0.15433	0.01130	0.47	AZ
6KG8UQ		0.15367	0.00816	0.34	0.15467	0.01163	0.49	MK
6Q7MJX		0.10667	-0.03884	-1.63	0.11333	-0.02970	-1.24	AZ
87TX7C		0.14947	0.00396	0.17	0.14850	0.00547	0.23	CS
8HYXUP		0.12633	-0.01918	-0.81	0.12467	-0.01837	-0.77	MU
9JTXGR		0.18447	0.03896	1.64	0.16673	0.02370	0.99	AZ
9VAFE6		0.16900	0.02349	0.99	0.17567	0.03263	1.36	SA
9Y9YCX		0.16000	0.01449	0.61	0.15867	0.01563	0.65	MJ
A29L4R	X	0.28380	0.13829	5.81	0.21093	0.06790	2.84	AZ
ABXFFN		0.15323	0.00772	0.32	0.15077	0.00773	0.32	AZ
B3TZ2Z		0.15280	0.00729	0.31	0.15327	0.01023	0.43	AZ
BRXPXZ		0.14733	0.00182	0.08	0.14733	0.00430	0.18	BA
C4PV7N	X	0.01114	-0.13437	-5.64	0.00917	-0.13387	-5.59	MU
CBBNJA		0.13343	-0.01208	-0.51	0.14000	-0.00303	-0.13	XX
CH8FR4		0.15833	0.01282	0.54	0.15400	0.01097	0.46	MJ
CKV2CD		0.12670	-0.01881	-0.79	0.13817	-0.00487	-0.20	CT
CRDB3V		0.15370	0.00819	0.34	0.15233	0.00930	0.39	AZ
CRVEE3		0.09800	-0.04751	-2.00	0.08567	-0.05737	-2.40	MU
CVVPB3		0.09800	-0.04751	-2.00	0.08567	-0.05737	-2.40	AZ
D2VBUP		0.12100	-0.02451	-1.03	0.12300	-0.02003	-0.84	MU
DLJT2P		0.10750	-0.03801	-1.60	0.10427	-0.03877	-1.62	MU
EFE9JQ	*	0.21200	0.06649	2.79	0.20750	0.06447	2.69	AZ
F6KMLQ	X	0.21000	0.06449	2.71	0.23000	0.08697	3.63	CT
FKMYGP		0.13620	-0.00931	-0.39	0.13593	-0.00710	-0.30	ML
GGGV39		0.17672	0.03121	1.31	0.17873	0.03570	1.49	XX
HH4UUC		0.12137	-0.02414	-1.01	0.12600	-0.01703	-0.71	AZ
JZL773		0.12933	-0.01618	-0.68	0.12533	-0.01770	-0.74	AZ
KZDQ4L		0.14333	-0.00218	-0.09	0.15333	0.01030	0.43	MU
L9QYBE		0.14843	0.00292	0.12	0.14687	0.00383	0.16	ML
NH9C6V		0.16250	0.01699	0.71	0.15500	0.01197	0.50	AZ
P3TGLT		0.13033	-0.01518	-0.64	0.12500	-0.01803	-0.75	CT
QD8TEG		0.15067	0.00516	0.22	0.14900	0.00597	0.25	MU
QK98YH		0.14800	0.00249	0.10	0.14667	0.00363	0.15	MK



Plastics Interlaboratory Testing Program

Report #118

Analysis 755

2nd Qtr 2021

Moisture Content of Plastics

WebCode	Data Flag	Sample Y75			Sample Y76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RRZACD	X	0.20600	0.06049	2.54	0.25800	0.11497	4.80	XX
RXNUD9		0.16133	0.01582	0.66	0.15967	0.01663	0.69	CS
THAN7F		0.14000	-0.00551	-0.23	0.13733	-0.00570	-0.24	XX
TZAQP6		0.15670	0.01119	0.47	0.13460	-0.00843	-0.35	MD
UXG8D7		0.14133	-0.00418	-0.18	0.14167	-0.00137	-0.06	CT
YAEVW2	X	0.05000	-0.09551	-4.01	0.03000	-0.11303	-4.72	XX

Summary Statistics		Sample Y75	Sample Y76
Grand Means		0.145511 Percent	0.143032 Percent
Stnd Dev Btwn Labs		0.023805 Percent	0.023947 Percent
Statistics based on 36 of 41 reporting participants			

Sample Y75: ABS & Sample Y76: ABS

Comments on Assigned Data Flags for Test #755

- C4PV7N (X) - Extreme data.
- A29L4R (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample Y75.
- YAEVW2 (X) - Extreme data.
- RRZACD (X) - Data for sample Y76 are high.
- F6KMLQ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample Y75			Sample Y76			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D6869	0.143958	0.019917	-0.0016	0.139478	0.020992	-0.0036	12/13
ISO 15512 Method B	0.158078	0.034029	0.0126	0.151739	0.034768	0.0087	6/6
ASTM D6980	0.135729	0.029114	-0.0098	0.133946	0.028792	-0.0091	8/10
ASTM D7191	0.151403	0.016233	0.0059	0.151824	0.015389	0.0088	7/9



Plastics Interlaboratory Testing Program

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Analysis 755

2nd Qtr 2021

Moisture Content of Plastics

Key to Instrument Codes Reported by Participants

AZ	Arizona Instruments Moisture Analyzer	BA	Brabender Aquatrac
CS	Cosa Instruments	CT	Computrac Moisture Analyzer
MD	Mettler Toledo DL37	MJ	Mitsubishi KF Analyzer Series
MK	Mitsubishi KF Analyzer CA	ML	Metrohm Coulometer
MU	Mettler Toledo	SA	Sartorius MA30
XX	Instrument manufacturer not specified by lab		



Plastics Interlaboratory Testing Program

Report #118

Analysis 757

2nd Qtr 2021

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L75			Sample L76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
23PXM6		30.075	-0.391	-1.59	30.415	-0.055	-0.22
2QG9P4		30.320	-0.146	-0.59	30.480	0.010	0.04
2VQDJN		30.955	0.489	1.99	30.840	0.370	1.47
36RFWK		30.525	0.059	0.24	30.460	-0.010	-0.04
37NNBV		30.350	-0.116	-0.47	30.485	0.015	0.06
3NNNC4		30.071	-0.395	-1.60	30.109	-0.361	-1.43
62JXWF		30.320	-0.146	-0.59	30.325	-0.145	-0.57
6Q7MJX		30.470	0.004	0.02	30.660	0.190	0.75
7MHKXA		30.770	0.304	1.24	30.495	0.025	0.10
8B28BY		30.395	-0.071	-0.29	30.510	0.040	0.16
8D8JDU		30.470	0.004	0.02	30.190	-0.280	-1.11
8HYXUP		30.625	0.159	0.65	30.655	0.185	0.73
9JTXGR		30.590	0.124	0.51	30.645	0.175	0.69
9VAFE6		30.590	0.124	0.51	30.595	0.125	0.50
9WEEZX		30.365	-0.101	-0.41	30.575	0.105	0.42
9Y9YCX		30.495	0.029	0.12	30.405	-0.065	-0.26
ABXFFN		30.835	0.369	1.50	30.795	0.325	1.29
B3TZ2Z		30.310	-0.156	-0.63	30.315	-0.155	-0.61
C6GQTX		31.011	0.546	2.22	30.970	0.501	1.98
CBBNJA	X	30.875	0.409	1.66	29.590	-0.880	-3.48
CE7FQK		30.641	0.175	0.71	30.537	0.067	0.27
CFGHE6		30.290	-0.176	-0.71	30.260	-0.210	-0.83
CH8FR4		30.285	-0.181	-0.73	30.140	-0.330	-1.30
CKV2CD		30.255	-0.211	-0.86	30.060	-0.410	-1.62
CVVPB3		30.235	-0.231	-0.94	30.620	0.150	0.60
D2VBUP	M	30.816	0.350	1.42	No data reported for this sample		
DLJT2P		30.628	0.162	0.66	30.541	0.072	0.28
DT6G68		30.557	0.092	0.37	30.348	-0.122	-0.48
EP2CKX		30.375	-0.091	-0.37	30.070	-0.400	-1.58
EPWZYM	*	30.750	0.284	1.15	30.200	-0.270	-1.07
EPYKU3		30.485	0.019	0.08	30.720	0.250	0.99
F6KMLQ	X	30.391	-0.075	-0.30	29.361	-1.108	-4.39
F7YU89		30.345	-0.121	-0.49	30.605	0.135	0.54
FXPHYG		30.950	0.484	1.97	30.940	0.470	1.86
GGGV39		30.490	0.024	0.10	30.415	-0.055	-0.22



Plastics Interlaboratory Testing Program

Report #118

Analysis 757

2nd Qtr 2021

Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L75			Sample L76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
GMNGWW		30.400	-0.066	-0.27	30.330	-0.140	-0.55
HT89FA		30.075	-0.391	-1.59	30.165	-0.305	-1.21
JGBFQJ		30.200	-0.266	-1.08	30.350	-0.120	-0.47
KZDQ4L	X	30.741	0.275	1.12	29.946	-0.524	-2.08
LFL4UH		30.627	0.161	0.65	30.521	0.051	0.20
M3UWET		30.025	-0.441	-1.79	30.020	-0.450	-1.78
MLRXTK		30.830	0.364	1.48	30.915	0.445	1.76
NTNA7T		30.390	-0.076	-0.31	30.170	-0.300	-1.19
P3TGLT	X	31.450	0.984	4.00	30.600	0.130	0.52
Q2AAGM		30.385	-0.081	-0.33	30.370	-0.100	-0.39
Q3R4FB		30.500	0.034	0.14	30.350	-0.120	-0.47
QD8TEG		30.315	-0.151	-0.61	30.365	-0.105	-0.41
QG9W4H		30.875	0.409	1.66	30.720	0.250	0.99
QK98YH	X	30.435	-0.031	-0.12	26.270	-4.200	-16.63
RDMJWZ		30.050	-0.416	-1.69	30.060	-0.410	-1.62
RHU8A2		30.820	0.354	1.44	30.940	0.470	1.86
RJQFNC		30.385	-0.081	-0.33	30.765	0.295	1.17
RRZACD		30.550	0.084	0.34	30.400	-0.070	-0.28
RXNUD9		30.165	-0.301	-1.22	30.620	0.150	0.60
THNC4Z		30.400	-0.066	-0.27	30.105	-0.365	-1.44
TZAQP6		30.580	0.114	0.46	30.770	0.300	1.19
UXG8D7		30.535	0.069	0.28	30.630	0.160	0.64
W82BHB		30.515	0.049	0.20	30.435	-0.035	-0.14
WKPA9D		30.695	0.229	0.93	30.710	0.240	0.95
WTJDGG		30.175	-0.291	-1.18	30.320	-0.150	-0.59
XAXHX6		30.795	0.329	1.34	30.838	0.368	1.46
XY6WVF		30.125	-0.341	-1.38	30.215	-0.255	-1.01
YAEVW2		30.300	-0.166	-0.67	30.300	-0.170	-0.67
YC38XT	X	31.177	0.711	2.89	30.441	-0.028	-0.11



Ash Content in Thermoplastics - Percent

Summary Statistics	<u>Sample L75</u>	<u>Sample L76</u>
Grand Means	30.4656 Percent	30.4695 Percent
Stnd Dev Btwn Labs	0.2463 Percent	0.2525 Percent
<small>Statistics based on 57 of 64 reporting participants</small>		

Sample L75: PBT & Sample L76: PBT

Comments on Assigned Data Flags for Test #757

- CBBNJA (X) - Data for sample L76 are low.
- QK98YH (X) - Data for sample L76 are low.
- P3TGLT (X) - Data for sample L75 are high.
- YC38XT (X) - Data for sample L75 are high. Inconsistent within the determinations of sample L76.
- D2VBUP (M) - Participant did not submit data for sample L76.
- F6KMLQ (X) - Data for sample L76 are low. Inconsistent within the determinations of sample L76.
- KZDQ4L (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L76.



Plastics Interlaboratory Testing Program

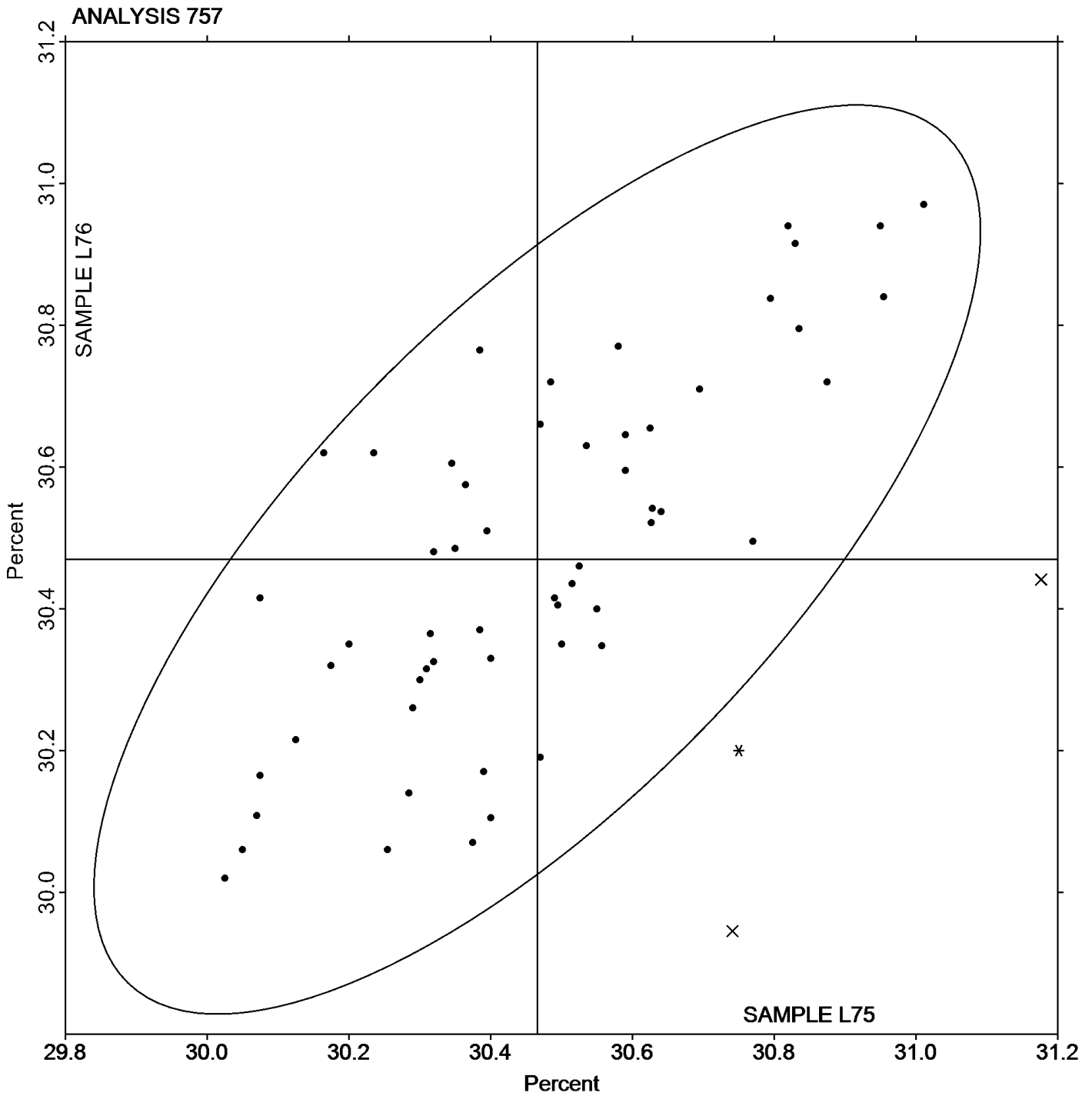
Analysis 757

Ash Content in Thermoplastics - Percent

Report #118

2nd Qtr 2021

Grand Mean Sample L75: 30.466 Percent Grand Mean Sample L76: 30.470 Percent





Plastics Interlaboratory Testing Program

Report #118

Analysis 758

2nd Qtr 2021

Thermogravimetric Analysis

WebCode	Data Flag	Sample A75			Sample A76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
36RFWK		79.98	0.86787	1.73	79.20	-0.14	-0.18	NZ
6KG8UQ		78.73	-0.38713	-0.77	79.45	0.12	0.16	TA
7DDDJV		79.46	0.34538	0.69	79.77	0.44	0.59	PE
8D9HCA		79.03	-0.08213	-0.16	78.91	-0.42	-0.56	TA
8HYXUP		79.15	0.03787	0.08	79.39	0.06	0.08	TA
9ANV9N		79.46	0.34937	0.70	79.64	0.31	0.41	TA
ABXFFN		79.25	0.13287	0.27	79.90	0.56	0.75	TA
C4PV7N		78.50	-0.61713	-1.23	77.33	-2.01	-2.68	TA
GYW67U		79.11	-0.00213	0.00	79.00	-0.34	-0.45	TA
JMUTG7		79.52	0.40287	0.80	79.30	-0.03	-0.04	XX
M3UWET		78.61	-0.50713	-1.01	79.12	-0.22	-0.29	TA
MLRXTK		77.95	-1.16213	-2.32	78.87	-0.47	-0.62	TA
NBQU4G		79.72	0.60287	1.20	79.40	0.06	0.08	TA
NDA26P		79.27	0.15287	0.31	81.01	1.67	2.23	TA
P3TGLT		79.20	0.08787	0.18	79.13	-0.21	-0.28	TA
RJQFNC		78.89	-0.22213	-0.44	79.94	0.61	0.81	XX

Summary Statistics		Sample A75	Sample A76
Grand Means		79.112 Percent	79.332 Percent
Stnd Dev Btwn Labs		0.501 Percent	0.750 Percent
Statistics based on 16 of 16 reporting participants			

Sample A75: PP & Sample A76: PP

Results by Methodology (as reported by laboratory)

Test Methodology	Sample A75			Sample A76			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D3850	79.021	0.563	-0.09	79.155	0.770	-0.18	9/9
ISO 11358	79.286	0.429	0.17	79.498	0.760	0.17	6/6

Key to Instrument Codes Reported by Participants

- NZ Netzsch Instruments
- TA TA Instruments
- PE Perkins Elmer Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

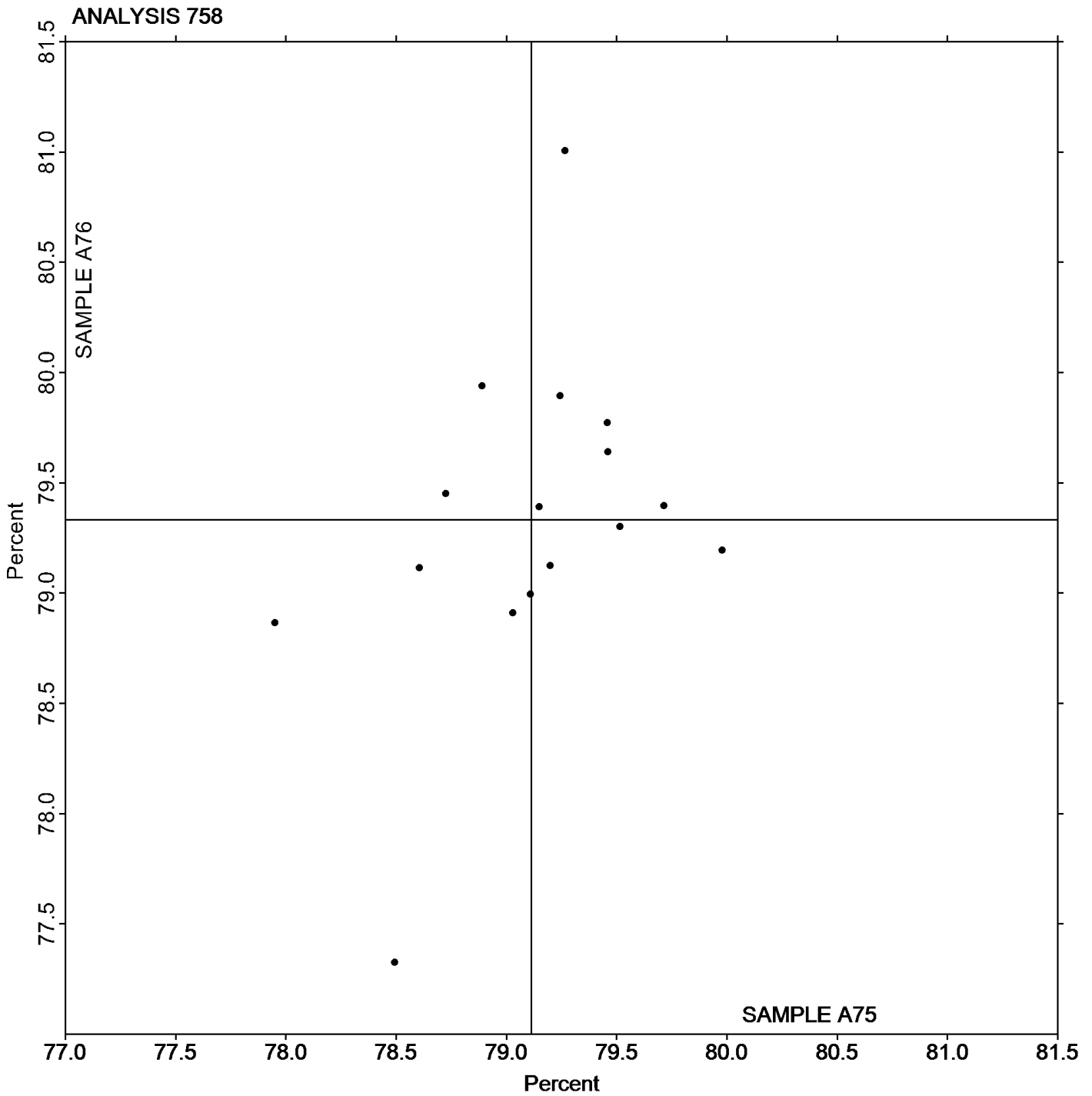
Report #118

Analysis 758

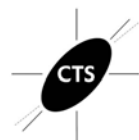
2nd Qtr 2021

Thermogravimetric Analysis

Grand Mean Sample A75: 79.112 Percent Grand Mean Sample A76: 79.332 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 #118

Analysis 760

2nd Qtr 2021

DSC Crystallization Temperature

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26FCVF		170.67	-4.52	-1.02	169.82	-5.15	-1.16	TA
2T32GX	X	173.50	-1.69	-0.38	181.00	6.03	1.36	NZ
36RFWK		170.33	-4.86	-1.10	170.40	-4.57	-1.03	NZ
43ZEV3		173.38	-1.81	-0.41	172.53	-2.44	-0.55	TA
6GHNWY		172.23	-2.96	-0.67	173.17	-1.80	-0.41	NZ
7DURMY		180.83	5.64	1.27	180.76	5.79	1.31	SH
7MHKXA		173.87	-1.33	-0.30	173.97	-1.00	-0.23	TA
9ANV9N		185.20	10.00	2.26	185.22	10.25	2.32	TA
9JTXGR		171.51	-3.68	-0.83	171.65	-3.31	-0.75	TA
C4PV7N		173.63	-1.56	-0.35	173.27	-1.70	-0.38	TA
CKV2CD		173.73	-1.46	-0.33	173.63	-1.33	-0.30	XX
CT74XE		179.05	3.85	0.87	177.10	2.13	0.48	TA
DLJT2P	*	178.26	3.07	0.69	180.03	5.06	1.14	TA
GYW67U		172.87	-2.33	-0.53	172.00	-2.97	-0.67	TA
HH4UUC		184.55	9.36	2.12	184.78	9.81	2.22	MT
HT89FA		173.87	-1.33	-0.30	172.63	-2.33	-0.53	TA
JGQKJQ	X	185.30	10.10	2.28	188.77	13.81	3.12	TA
M3UWET		173.17	-2.03	-0.46	173.20	-1.77	-0.40	TA
MLRXTK		184.40	9.21	2.08	183.40	8.43	1.91	TA
NDA26P		174.87	-0.33	-0.07	175.00	0.03	0.01	TA
NRX4RM		174.77	-0.43	-0.10	175.20	0.23	0.05	PE
P3TGLT		174.42	-0.78	-0.18	174.50	-0.46	-0.10	TA
Q2AAGM		172.96	-2.23	-0.50	172.64	-2.33	-0.53	TA
QK98YH	X	223.80	48.61	10.99	223.70	48.73	11.01	MT
RJQFNC		173.18	-2.01	-0.45	173.54	-1.43	-0.32	TA
RRZACD		169.97	-5.23	-1.18	170.20	-4.77	-1.08	NZ
THAN7F		180.80	5.61	1.27	179.65	4.68	1.06	NZ
TNG8AE	X	174.70	-0.49	-0.11	183.40	8.43	1.91	XX
TZAQP6		171.41	-3.78	-0.86	170.78	-4.18	-0.95	PE
WRQNWZ		174.05	-1.14	-0.26	173.07	-1.90	-0.43	TA
XY6WVF		172.24	-2.95	-0.67	171.97	-2.99	-0.68	TA



Plastics Interlaboratory Testing Program

Report #118

Analysis 760

2nd Qtr 2021

DSC Crystallization Temperature

Summary Statistics

	<u>Sample W75</u>	<u>Sample W76</u>
Grand Means	175.193 Degrees Celsius	174.967 Degrees Celsius
Stnd Dev Btwn Labs	4.424 Degrees Celsius	4.425 Degrees Celsius

Statistics based on 27 of 31 reporting participants

Sample W75: PBT & Sample W76: PBT

Comments on Assigned Data Flags for Test #760

TNG8AE (X) - Inconsistent in testing between samples.

QK98YH (X) - Data for both samples are high. Possible Systematic Error.

2T32GX (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample W75.

JGQKJQ (X) - Data for sample W76 are high. Inconsistent within the determinations of sample W75.

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

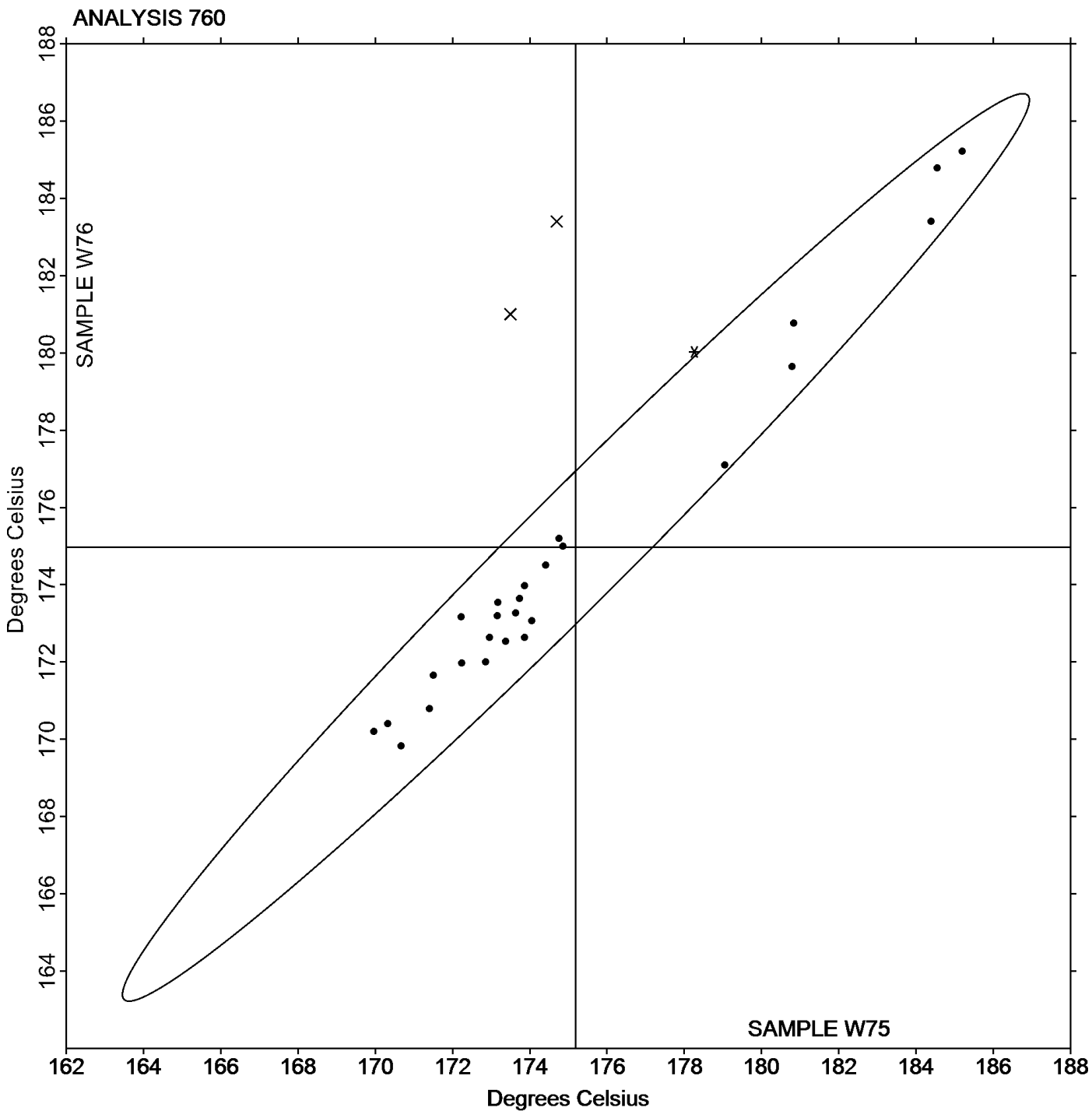
Analysis 760

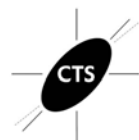
DSC Crystallization Temperature

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Grand Mean Sample W75: 175.19 Degrees Celsius Grand Mean Sample W76: 174.97 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #118

Analysis 761

2nd Qtr 2021

DSC Melt Temperature

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26FCVF		224.04	0.24	0.19	224.51	0.64	0.50	TA
2T32GX		226.00	2.20	1.77	226.00	2.13	1.68	NZ
36RFWK		225.17	1.36	1.10	225.70	1.83	1.44	NZ
3UCJZU		223.42	-0.39	-0.31	223.44	-0.44	-0.34	PE
43ZEV3		224.67	0.87	0.70	224.97	1.10	0.87	TA
6GHNWY		223.17	-0.64	-0.51	222.57	-1.31	-1.03	NZ
7DURMY		221.65	-2.15	-1.73	221.57	-2.30	-1.82	SH
7MHKXA		223.00	-0.80	-0.65	222.77	-1.11	-0.87	TA
9ANV9N		225.47	1.66	1.34	225.22	1.35	1.07	XX
9JTXGR		226.25	2.45	1.97	225.50	1.63	1.29	TA
BRXPXZ		221.43	-2.37	-1.91	221.43	-2.44	-1.93	TA
C4PV7N		223.27	-0.54	-0.43	223.50	-0.37	-0.29	TA
C7WQB2		222.13	-1.67	-1.35	222.13	-1.74	-1.37	NZ
CE7FQK		223.53	-0.27	-0.22	223.91	0.03	0.03	TA
CKV2CD		225.30	1.50	1.21	225.40	1.53	1.21	XX
CT74XE		224.25	0.45	0.36	224.20	0.32	0.26	TA
DLJT2P		222.72	-1.08	-0.87	222.47	-1.41	-1.11	TA
GYW67U		224.03	0.23	0.19	224.67	0.79	0.63	TA
HH4UUC		223.44	-0.36	-0.29	223.45	-0.43	-0.34	MT
HT89FA		222.97	-0.84	-0.67	222.83	-1.04	-0.82	TA
JGQKJQ	X	212.68	-11.12	-8.96	212.03	-11.84	-9.36	TA
L9QYBE		224.98	1.17	0.95	225.46	1.58	1.25	TA
M3UWET		223.57	-0.24	-0.19	223.97	0.09	0.07	TA
MLRXTK		224.37	0.56	0.45	224.30	0.43	0.34	TA
NDA26P		223.53	-0.27	-0.22	223.57	-0.31	-0.24	TA
NRX4RM		224.20	0.40	0.32	224.20	0.33	0.26	PE
P3TGLT		222.67	-1.13	-0.91	222.55	-1.33	-1.05	XX
Q2AAGM		225.33	1.53	1.23	224.68	0.81	0.64	XX
RJQFNC	*	223.94	0.14	0.11	225.34	1.46	1.16	TA
RRZACD		224.23	0.43	0.35	224.23	0.36	0.29	NZ
THAN7F		224.00	0.20	0.16	224.10	0.23	0.18	NZ
TNG8AE		224.73	0.93	0.75	224.23	0.36	0.29	XX
TZAQP6		220.88	-2.92	-2.36	221.31	-2.57	-2.03	PE
WRQNWZ		223.47	-0.33	-0.27	224.32	0.45	0.35	TA
WTJDGG		223.49	-0.31	-0.25	223.17	-0.71	-0.56	TA



Plastics Interlaboratory Testing Program

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Analysis 761

2nd Qtr 2021

DSC Melt Temperature

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XY6WVF	X	172.24	-51.56	-41.55	171.97	-51.90	-41.02	XX

Summary Statistics

	Sample W75	Sample W76
Grand Means	223.804 Degrees Celsius	223.872 Degrees Celsius
Std Dev Btwn Labs	1.241 Degrees Celsius	1.265 Degrees Celsius

Statistics based on 34 of 36 reporting participants

Sample W75: PBT & Sample W76: PBT

Comments on Assigned Data Flags for Test #761

XY6WVF (X) - Data for both samples are low. Possible Systematic Error.

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



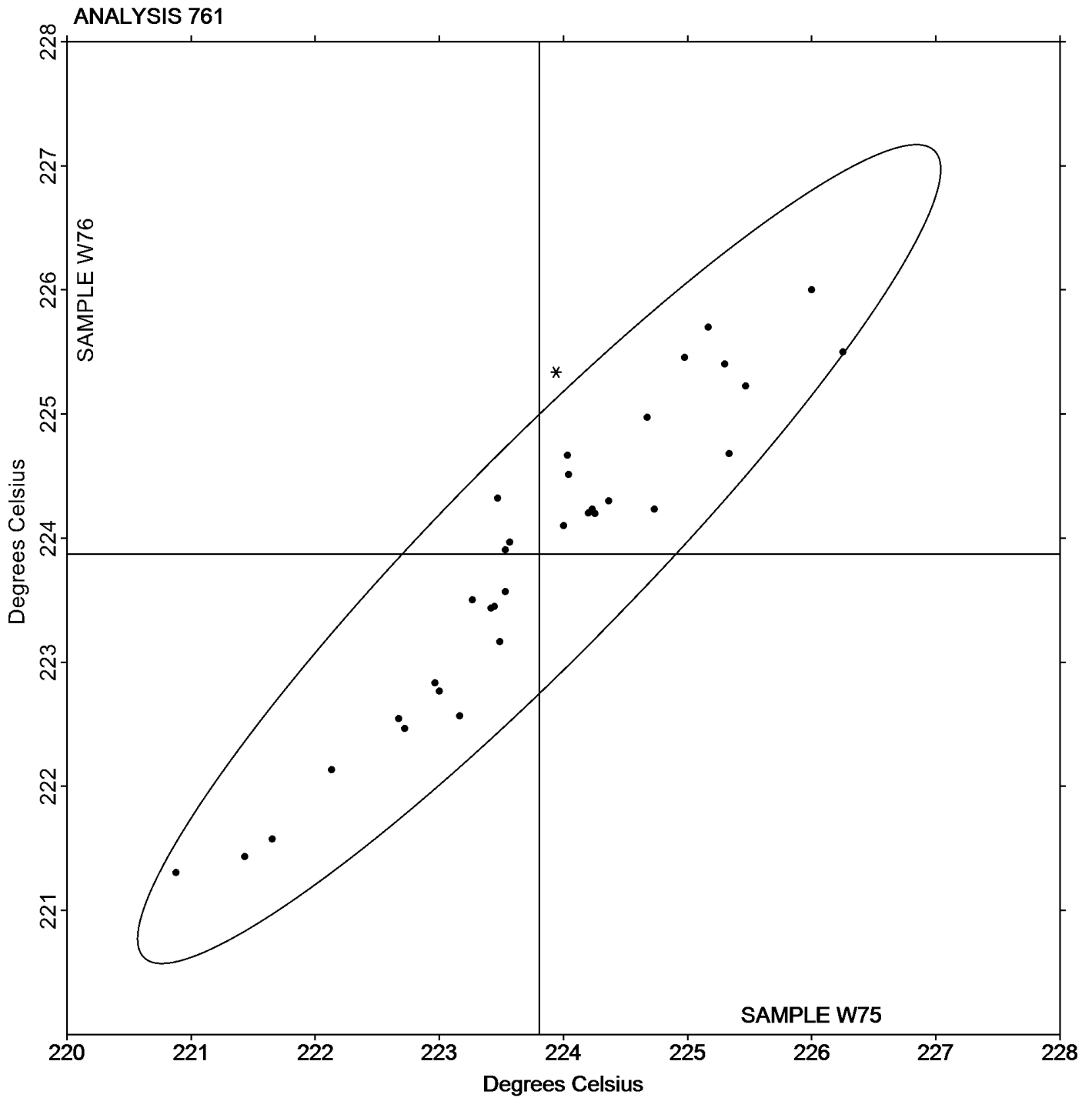
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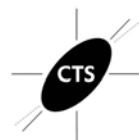
Analysis 761 DSC Melt Temperature

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Grand Mean Sample W75: 223.80 Degrees Celsius Grand Mean Sample W76: 223.87 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #118

Analysis 762

2nd Qtr 2021

DSC Enthalpy of Crystallization

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26FCVF		47.41	1.58	0.33	46.21	0.48	0.11	TA
2T32GX	X	69.43	23.60	4.98	58.86	13.13	3.02	NZ
36RFWK		44.47	-1.36	-0.29	45.35	-0.38	-0.09	NZ
43ZEV3		47.69	1.86	0.39	48.00	2.28	0.52	TA
6GHNWY		46.20	0.37	0.08	46.60	0.87	0.20	NZ
7DURMY	*	35.10	-10.73	-2.27	39.65	-6.07	-1.40	SH
7MHKXA		47.55	1.72	0.36	47.78	2.05	0.47	TA
9ANV9N		51.30	5.47	1.16	49.38	3.66	0.84	XX
9JTXGR		40.34	-5.49	-1.16	39.85	-5.87	-1.35	TA
C4PV7N		48.05	2.22	0.47	48.90	3.18	0.73	TA
CKV2CD		48.80	2.97	0.63	48.07	2.34	0.54	XX
CT74XE		45.25	-0.58	-0.12	44.57	-1.16	-0.27	TA
DLJT2P		51.78	5.95	1.26	51.94	6.21	1.43	TA
GYW67U		48.69	2.86	0.60	47.31	1.58	0.36	TA
HT89FA		44.23	-1.60	-0.34	43.37	-2.35	-0.54	TA
JGQKJQ		51.79	5.95	1.26	53.61	7.89	1.82	TA
M3UWET		50.36	4.53	0.96	49.65	3.93	0.90	TA
MLRXTK		48.31	2.48	0.52	47.47	1.74	0.40	TA
NDA26P		45.64	-0.19	-0.04	46.38	0.65	0.15	TA
NRX4RM		45.59	-0.24	-0.05	44.39	-1.33	-0.31	PE
P3TGTL		51.12	5.29	1.12	50.92	5.19	1.19	TA
RJQFNC		48.71	2.88	0.61	45.69	-0.04	-0.01	TA
RRZACD		41.12	-4.71	-0.99	41.58	-4.14	-0.95	NZ
THAN7F	X	-45.37	-91.20	-19.26	-46.76	-92.48	-21.29	NZ
TNG8AE		42.50	-3.33	-0.70	42.71	-3.01	-0.69	XX
TZAQP6		36.62	-9.21	-1.95	38.00	-7.73	-1.78	PE
WRQNWZ		37.16	-8.67	-1.83	35.81	-9.92	-2.28	TA

Summary Statistics

Grand Means

Sample W75

45.832 Joules Per Gram

Sample W76

45.728 Joules Per Gram

Std Dev Btwn Labs

4.735 Joules Per Gram

4.344 Joules Per Gram

Statistics based on 25 of 27 reporting participants

Sample W75: PBT & Sample W76: PBT



Comments on Assigned Data Flags for Test #762

2T32GX (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

THAN7F (X) - Participant flagged for submitting negative values. Ellipse generated reflects positive values.

Key to Instrument Codes Reported by Participants

NZ Netzsch Instruments

PE Perkins Elmer Instruments

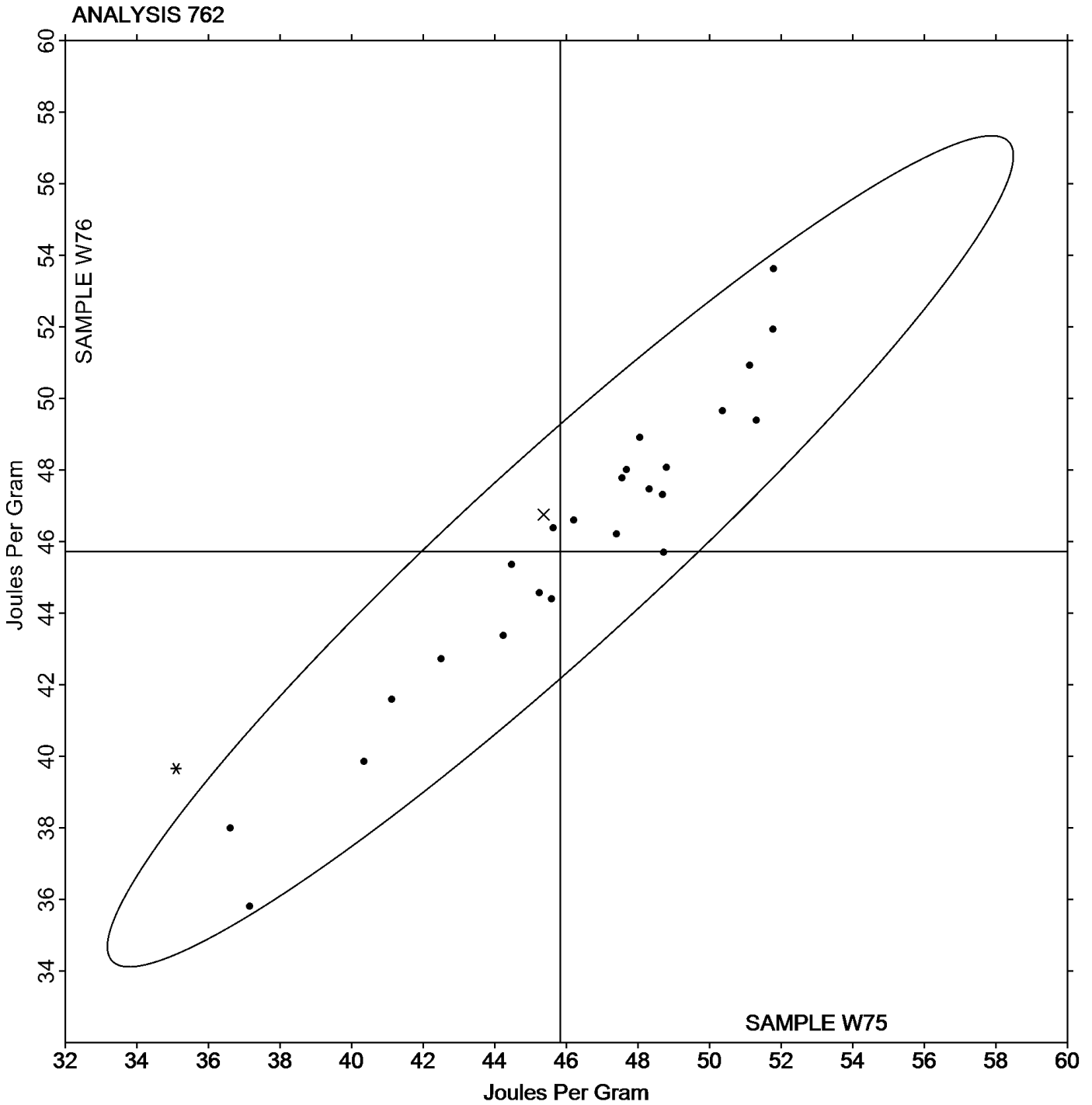
SH Shimadzu

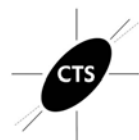
TA TA Instruments

XX Instrument manufacturer not specified by lab



Grand Mean Sample W75: 45.832 Joules Per Gram Grand Mean Sample W76: 45.728 Joules Per Gram





Plastics Interlaboratory Testing Program

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Analysis 763

2nd Qtr 2021

DSC Enthalpy of Fusion

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26FCVF		37.28	-2.71	-0.45	36.25	-3.87	-0.65	TA
2T32GX	X	59.79	19.79	3.27	49.85	9.72	1.63	NZ
36RFWK		37.12	-2.87	-0.47	37.60	-2.52	-0.42	NZ
43ZEV3		46.52	6.53	1.08	45.77	5.65	0.94	TA
6GHNWY		42.69	2.70	0.45	43.07	2.95	0.49	NZ
7DURMY	*	26.80	-13.19	-2.18	30.50	-9.62	-1.61	SH
7MHKXA		37.48	-2.51	-0.41	38.34	-1.78	-0.30	TA
9ANV9N		43.11	3.12	0.52	45.81	5.69	0.95	XX
9JTXGR		45.66	5.67	0.94	45.33	5.21	0.87	TA
C4PV7N		38.18	-1.81	-0.30	37.24	-2.88	-0.48	TA
C7WQB2		41.34	1.35	0.22	40.61	0.49	0.08	NZ
CKV2CD		40.03	0.04	0.01	37.57	-2.56	-0.43	XX
CT74XE		44.16	4.17	0.69	44.38	4.25	0.71	TA
DLJT2P		53.79	13.80	2.28	51.76	11.63	1.94	TA
GYW67U		37.60	-2.39	-0.39	35.23	-4.89	-0.82	TA
HT89FA		36.49	-3.50	-0.58	36.02	-4.10	-0.69	TA
JGQKJQ	*	51.70	11.71	1.93	54.51	14.38	2.40	TA
L9QYBE		34.86	-5.13	-0.85	33.94	-6.18	-1.03	TA
M3UWET		39.50	-0.49	-0.08	38.57	-1.55	-0.26	TA
MLRXTK		37.53	-2.46	-0.41	37.80	-2.32	-0.39	TA
NDA26P		40.13	0.14	0.02	40.78	0.66	0.11	TA
NRX4RM		50.73	10.74	1.77	49.18	9.06	1.51	PE
P3TGLT		41.18	1.19	0.20	40.99	0.86	0.14	TA
RJQFNC		38.20	-1.79	-0.30	35.67	-4.45	-0.74	TA
RRZACD		32.98	-7.01	-1.16	33.69	-6.43	-1.07	NZ
THAN7F		36.51	-3.48	-0.57	37.22	-2.91	-0.49	NZ
TNG8AE		34.51	-5.48	-0.91	36.90	-3.22	-0.54	XX
TZAQP6		30.90	-9.09	-1.50	31.51	-8.61	-1.44	PE
WRQNWZ		42.74	2.75	0.45	47.17	7.05	1.18	TA



Plastics Interlaboratory Testing Program

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Analysis 763

2nd Qtr 2021

DSC Enthalpy of Fusion

Summary Statistics

	<u>Sample W75</u>	<u>Sample W76</u>
Grand Means	39.991 Joules Per Gram	40.122 Joules Per Gram
Stnd Dev Btwn Labs	6.054 Joules Per Gram	5.982 Joules Per Gram

Statistics based on 28 of 29 reporting participants

Sample W75: PBT & Sample W76: PBT

Comments on Assigned Data Flags for Test #763

2T32GX (X) - Data for sample W75 are high. Inconsistent within the determinations of both samples.

Key to Instrument Codes Reported by Participants

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



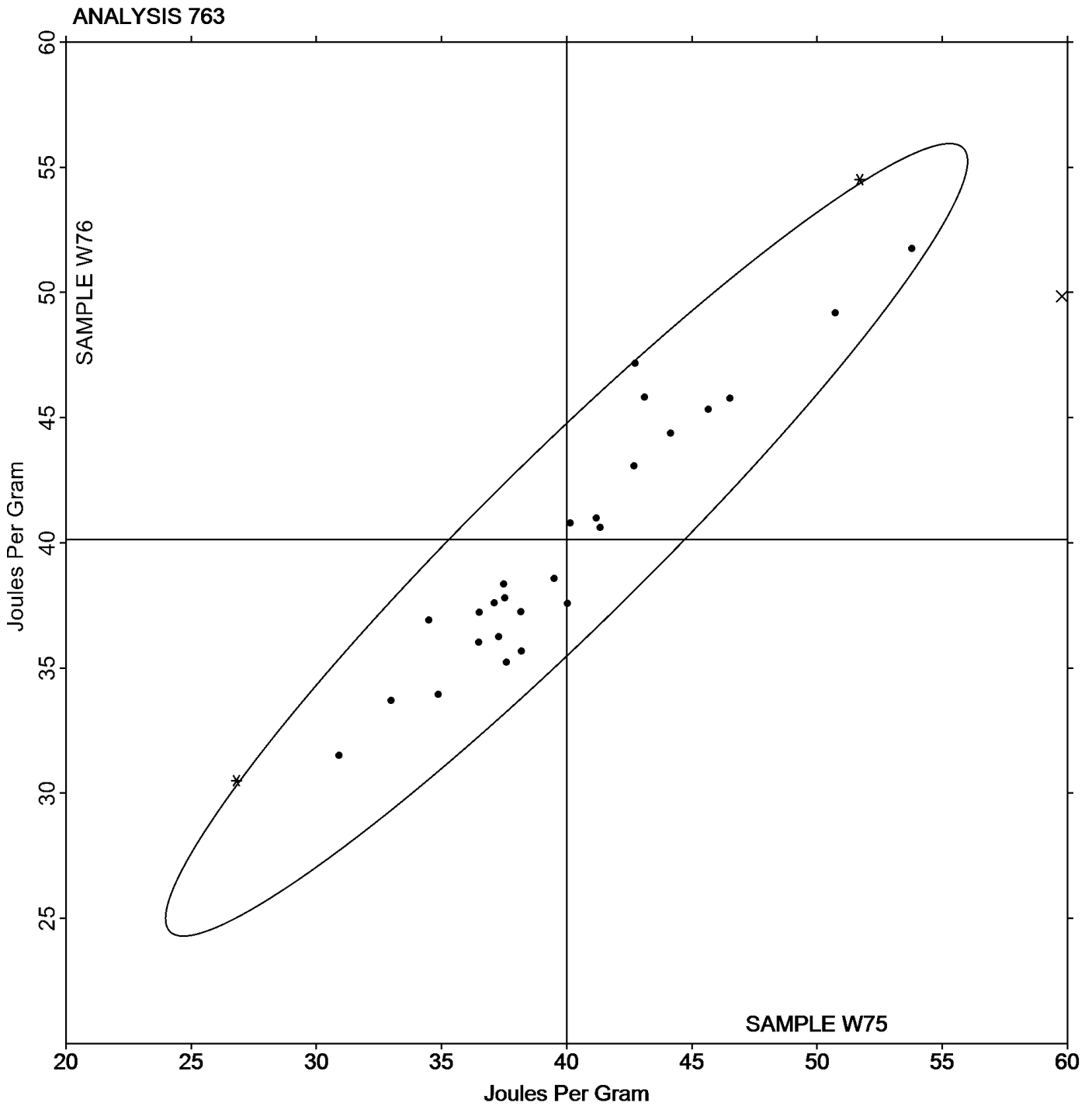
Plastics Interlaboratory Testing Program

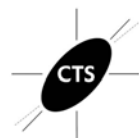
Analysis 763 DSC Enthalpy of Fusion

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Grand Mean Sample W75: 39.991 Joules Per Gram Grand Mean Sample W76: 40.122 Joules Per Gram





Plastics Interlaboratory Testing Program

Report #118

Analysis 764

2nd Qtr 2021

DSC Glass Transition Temperature

WebCode	Data Flag	Sample V75			Sample V76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26FCVF		110.36	0.27	0.13	111.61	2.09	0.82	TA
2T32GX	X	47.00	-63.09	-29.30	48.00	-61.52	-24.02	NZ
36RFWK		111.10	1.01	0.47	110.77	1.24	0.49	NZ
43ZEV3		110.82	0.74	0.34	110.75	1.23	0.48	TA
6GHNWY		112.00	1.91	0.89	112.60	3.08	1.20	NZ
7DURMY	X	99.71	-10.37	-4.82	100.24	-9.29	-3.63	SH
7MHKXA		111.00	0.91	0.42	109.40	-0.12	-0.05	TA
9ANV9N		112.47	2.38	1.11	111.54	2.01	0.79	XX
9JTXGR		106.97	-3.11	-1.45	104.70	-4.83	-1.88	TA
C4PV7N	X	173.63	63.55	29.52	173.27	63.74	24.89	TA
C7WQB2		108.90	-1.19	-0.55	109.13	-0.39	-0.15	NZ
CKV2CD		109.03	-1.05	-0.49	107.97	-1.56	-0.61	XX
DLJT2P	X	101.79	-8.30	-3.85	107.19	-2.34	-0.91	TA
GYW67U		108.67	-1.42	-0.66	109.10	-0.42	-0.17	TA
HH4UUC		112.17	2.08	0.97	112.27	2.75	1.07	MT
HT89FA		109.07	-1.02	-0.47	106.17	-3.36	-1.31	TA
JGQKJQ		105.84	-4.25	-1.97	103.42	-6.11	-2.38	TA
L9QYBE		112.04	1.95	0.91	111.80	2.28	0.89	TA
M3UWET		110.27	0.18	0.08	110.43	0.91	0.36	TA
MLRXTK		108.93	-1.15	-0.54	108.20	-1.32	-0.52	TA
NDA26P		111.57	1.48	0.69	111.73	2.21	0.86	TA
NRX4RM		109.73	-0.35	-0.16	108.80	-0.72	-0.28	PE
P3TGLT	*	104.21	-5.87	-2.73	105.14	-4.38	-1.71	XX
RJQFNC		112.79	2.70	1.25	111.66	2.13	0.83	TA
RRZACD		111.83	1.75	0.81	109.90	0.38	0.15	NZ
THAN7F		109.60	-0.49	-0.23	109.95	0.43	0.17	NZ
TNG8AE		109.63	-0.45	-0.21	109.67	0.14	0.06	XX
TZAQP6		110.05	-0.03	-0.02	108.02	-1.50	-0.59	PE
WRQNWZ		113.09	3.00	1.40	113.37	3.85	1.50	XX



Plastics Interlaboratory Testing Program

Report #118

Analysis 764

2nd Qtr 2021

DSC Glass Transition Temperature

Summary Statistics

	<u>Sample V75</u>	<u>Sample V76</u>
Grand Means	110.086 Degrees Celsius	109.524 Degrees Celsius
Std Dev Btwn Labs	2.153 Degrees Celsius	2.561 Degrees Celsius

Statistics based on 25 of 29 reporting participants

Sample V75: ABS & Sample V76: ABS

Comments on Assigned Data Flags for Test #764

C4PV7N (X) - Data for both samples are high.

7DURMY (X) - Data for both samples are low.

2T32GX (X) - Extreme data.

DLJT2P (X) - Data for sample V75 are low. Inconsistent within the determinations of sample V76.

Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

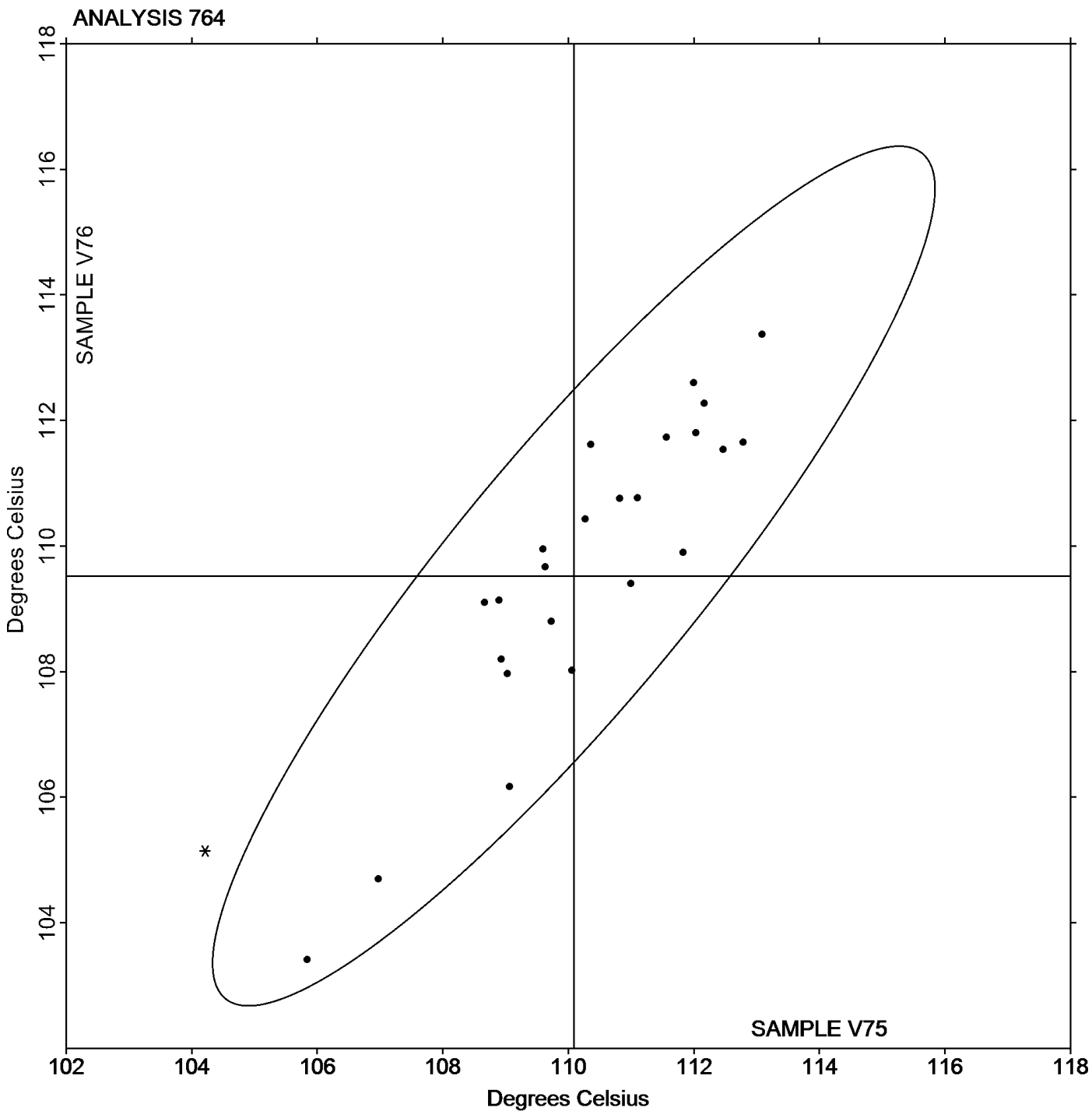
SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



Grand Mean Sample V75: 110.09 Degrees Celsius Grand Mean Sample V76: 109.52 Degrees Celsius





Plastics Interlaboratory Testing Program

Report #118

Analysis 765

2nd Qtr 2021

Research Crystallization Peak Temperature

WebCode	Data Flag	<u>Sample W75</u>			<u>Sample W76</u>			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6GHNWY		172.23	-5.23	-1.05	173.17	-4.53	-0.97	NZ
9ANV9N		184.57	7.11	1.43	184.63	6.94	1.50	XX
ABXFFN		173.43	-4.03	-0.81	173.00	-4.69	-1.01	TA
C4PV7N		173.63	-3.83	-0.77	173.60	-4.09	-0.88	XX
DLJT2P		178.26	0.80	0.16	180.03	2.34	0.50	XX
JGQKJQ		175.22	-2.24	-0.45	176.97	-0.72	-0.16	TA
NBQU4G		186.27	8.81	1.78	185.37	7.67	1.65	TA
NRX4RM		177.00	-0.46	-0.09	176.97	-0.72	-0.16	XX
RJQFNC		173.18	-4.28	-0.86	173.54	-4.16	-0.90	TA
THAN7F		180.80	3.34	0.67	179.65	1.96	0.42	NZ

Summary Statistics		
	<u>Sample W75</u>	<u>Sample W76</u>
Grand Means	177.460 Degrees Celsius	177.692 Degrees Celsius
Std Dev Btwn Labs	4.961 Degrees Celsius	4.642 Degrees Celsius
Statistics based on 10 of 10 reporting participants		

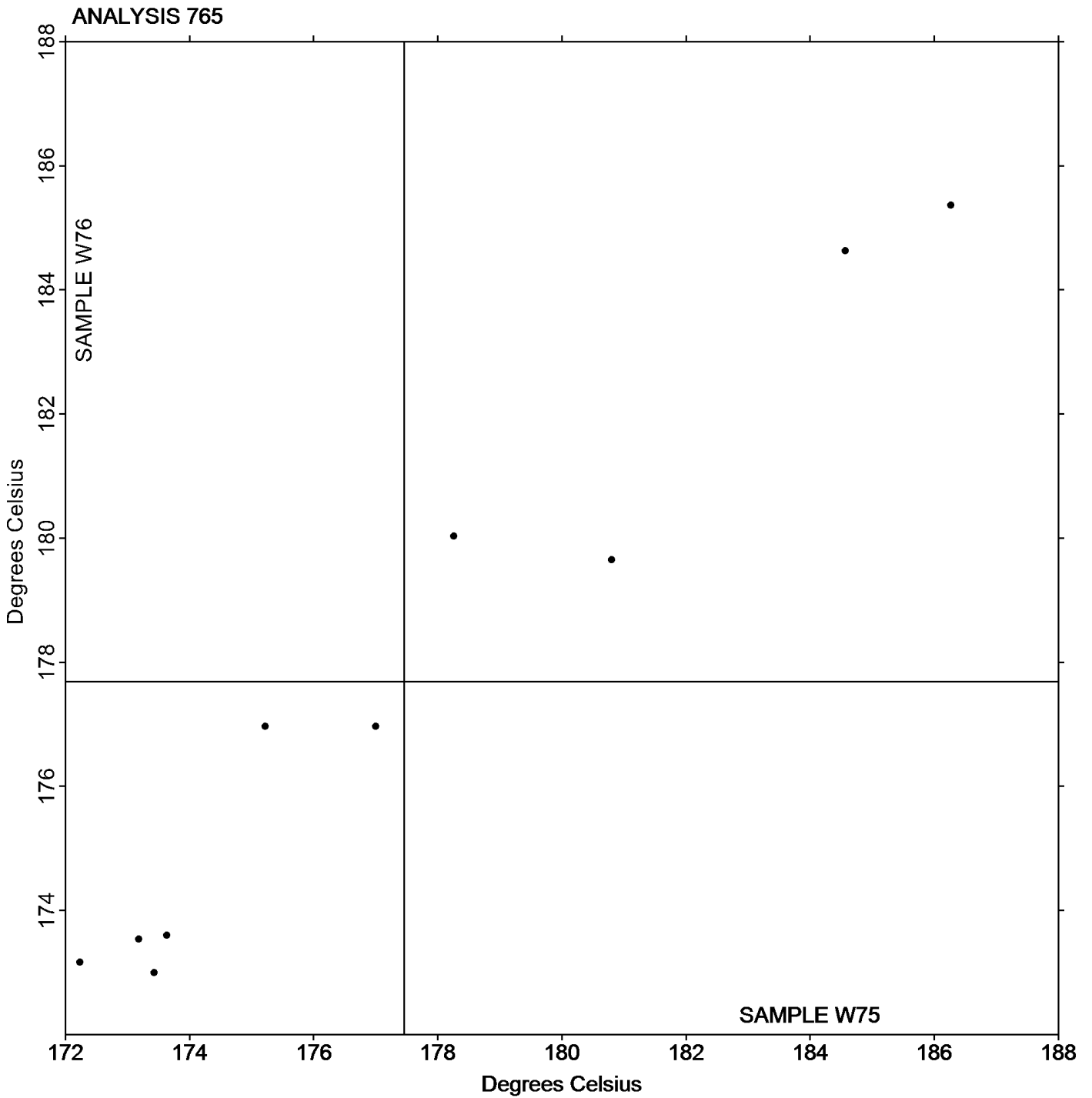
Sample W75: PBT & Sample W76: PBT

Key to Instrument Codes Reported by Participants

- NZ Netzsch Instruments
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Grand Mean Sample W75: 177.46 Degrees Celsius Grand Mean Sample W76: 177.69 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 #118

Analysis 766

2nd Qtr 2021

Research Melting Peak Temperature

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6GHNWY		223.17	0.09	0.11	222.57	-0.57	-0.50	NZ
9ANV9N		222.65	-0.42	-0.49	222.51	-0.63	-0.54	XX
ABXFFN		222.60	-0.47	-0.55	222.43	-0.71	-0.61	TA
C4PV7N		223.27	0.19	0.23	223.50	0.36	0.31	TA
CE7FQK		223.53	0.46	0.54	223.91	0.77	0.66	TA
DLJT2P		222.92	-0.15	-0.18	222.47	-0.67	-0.58	XX
JGQKJQ		221.09	-1.99	-2.33	221.29	-1.85	-1.60	TA
NBQU4G		222.63	-0.44	-0.51	222.27	-0.87	-0.75	TA
NRX4RM		224.00	0.93	1.09	224.17	1.03	0.89	XX
RJQFNC		223.94	0.87	1.02	225.34	2.20	1.90	TA
THAN7F		224.00	0.93	1.09	224.10	0.96	0.83	NZ

Summary Statistics

	Sample W75	Sample W76
Grand Means	223.073 Degrees Celsius	223.140 Degrees Celsius
Std Dev Btwn Labs	0.854 Degrees Celsius	1.157 Degrees Celsius

Statistics based on 11 of 11 reporting participants

Sample W75: PBT & Sample W76: PBT

Key to Instrument Codes Reported by Participants

NZ Netzsch Instruments

TA TA Instruments

XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

Report #118

Analysis 767

2nd Qtr 2021

Research Heat of Crystallization

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6GHNWY		46.20	-3.83	-0.95	46.60	-2.66	-0.59	NZ
9ANV9N		48.06	-1.97	-0.49	47.85	-1.41	-0.31	XX
ABXFFN		46.55	-3.48	-0.87	45.12	-4.14	-0.91	TA
C4PV7N	X	48.05	-1.99	-0.49	193.80	144.54	31.77	TA
JGQKJQ		51.79	1.75	0.44	53.61	4.35	0.96	TA
NBQU4G		57.80	7.77	1.93	57.38	8.11	1.78	TA
NRX4RM		51.12	1.09	0.27	48.58	-0.68	-0.15	XX
RJQFNC		48.71	-1.32	-0.33	45.69	-3.57	-0.79	TA
THAN7F	X	-45.37	-95.40	-23.72	-46.76	-96.02	-21.10	NZ

Summary Statistics		
	Sample W75	Sample W76
Grand Means	50.034 Joules Per Gram	49.263 Joules Per Gram
Stnd Dev Btwn Labs	4.022 Joules Per Gram	4.550 Joules Per Gram
Statistics based on 7 of 9 reporting participants		

Sample W75: PBT & Sample W76: PBT

Comments on Assigned Data Flags for Test #767

C4PV7N (X) - Extreme data.

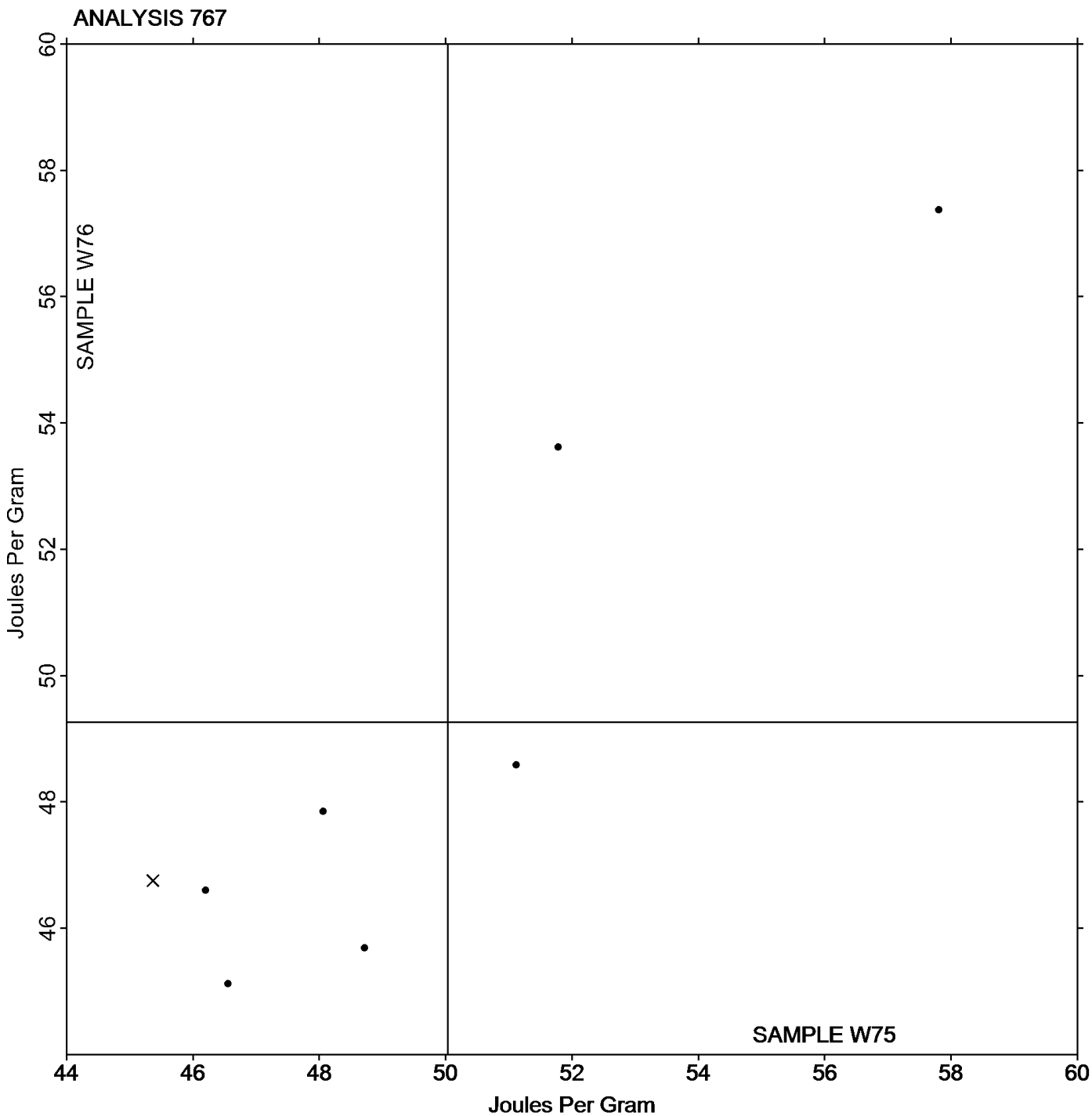
THAN7F () - Participant flagged for submitting negative values. Ellipse generated reflects positive values.

Key to Instrument Codes Reported by Participants

- NZ Netzsch Instruments
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Grand Mean Sample W75: 50.034 Joules Per Gram Grand Mean Sample W76: 49.263 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 #118

Analysis 768

2nd Qtr 2021

Research Heat of Fusion

WebCode	Data Flag	Sample W75			Sample W76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6GHNWY		42.69	-1.51	-0.23	43.07	-0.45	-0.06	NZ
9ANV9N		49.54	5.35	0.82	45.03	1.51	0.22	XX
ABXFFN		38.92	-5.28	-0.81	38.07	-5.45	-0.78	TA
C4PV7N		38.18	-6.01	-0.92	37.24	-6.28	-0.89	TA
JGQKJQ		51.70	7.51	1.15	54.51	10.99	1.56	TA
NBQU4G		52.01	7.82	1.20	52.21	8.69	1.24	TA
NRX4RM		50.00	5.80	0.89	48.65	5.13	0.73	XX
RJQFNC		38.20	-6.00	-0.92	35.67	-7.85	-1.12	TA
THAN7F		36.51	-7.68	-1.18	37.22	-6.30	-0.90	NZ

Summary Statistics		
	Sample W75	Sample W76
Grand Means	44.194 Joules Per Gram	43.519 Joules Per Gram
Stnd Dev Btwn Labs	6.529 Joules Per Gram	7.032 Joules Per Gram
Statistics based on 9 of 9 reporting participants		

Sample W75: PBT & Sample W76: PBT

Key to Instrument Codes Reported by Participants

- NZ Netzsch Instruments
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

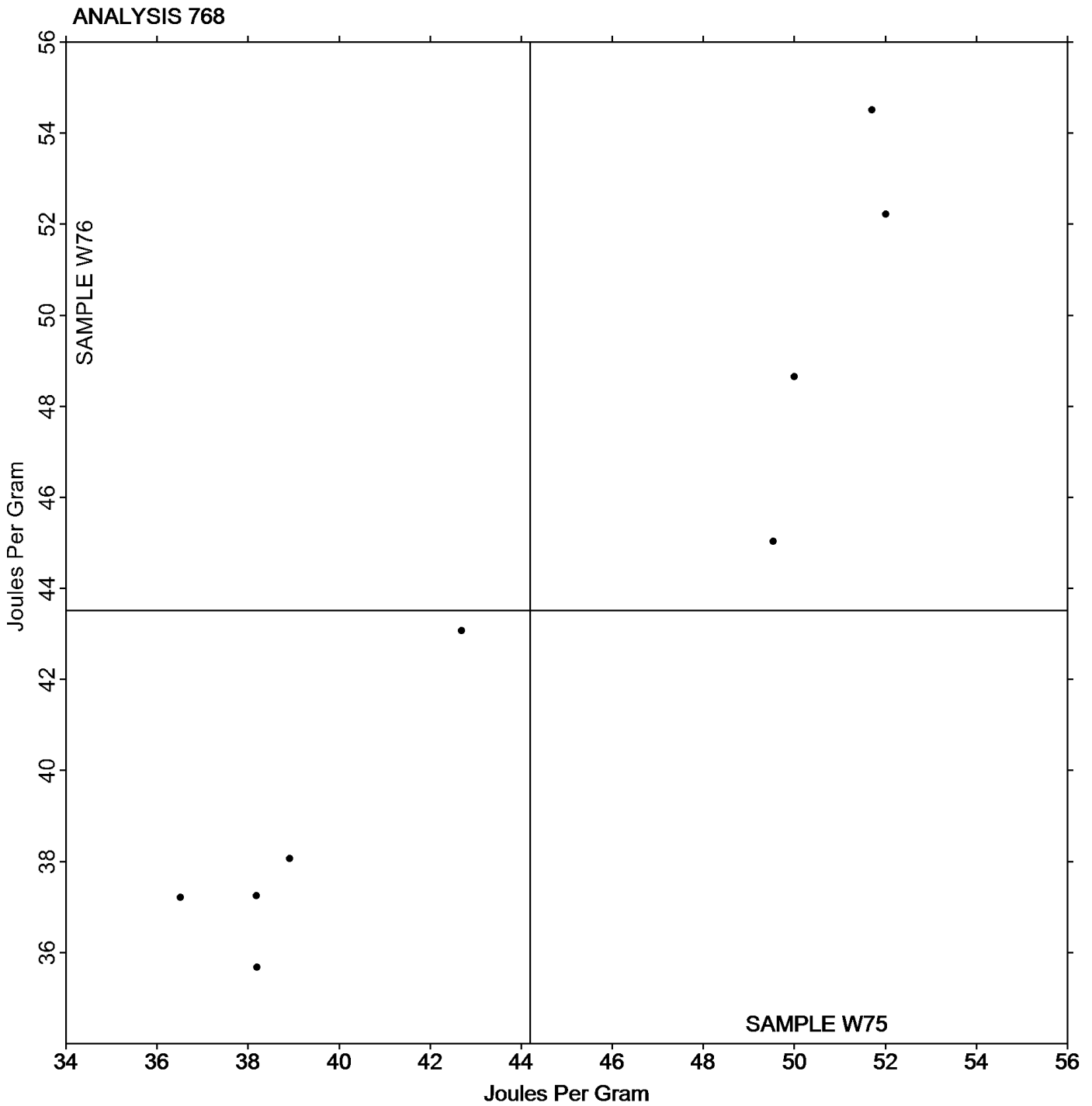
Analysis 768

Research Heat of Fusion

Report #118

2nd Qtr 2021

Grand Mean Sample W75: 44.194 Joules Per Gram Grand Mean Sample W76: 43.519 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 #118

Analysis 769

2nd Qtr 2021

Research Glass Transition Temperature

WebCode	Data Flag	Sample V75			Sample V76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6GHNWY		112.00	3.23	0.96	112.60	4.63	1.13	NZ
9ANV9N		112.47	3.69	1.10	111.54	3.57	0.87	XX
ABXFFN		107.17	-1.61	-0.48	104.47	-3.50	-0.85	TA
C4PV7N		109.83	1.06	0.32	109.47	1.50	0.37	TA
JGQKJQ		105.84	-2.93	-0.87	103.42	-4.55	-1.11	TA
NBQU4G		103.47	-5.31	-1.58	101.07	-6.90	-1.68	TA
NRX4RM		105.80	-2.97	-0.89	107.53	-0.43	-0.11	XX
RJQFNC		112.79	4.01	1.20	111.66	3.69	0.90	TA
THAN7F		109.60	0.83	0.25	109.95	1.98	0.48	NZ

Summary Statistics

	Sample V75	Sample V76
Grand Means	108.773 Degrees Celsius	107.966 Degrees Celsius
Stnd Dev Btwn Labs	3.357 Degrees Celsius	4.104 Degrees Celsius

Statistics based on 9 of 9 reporting participants

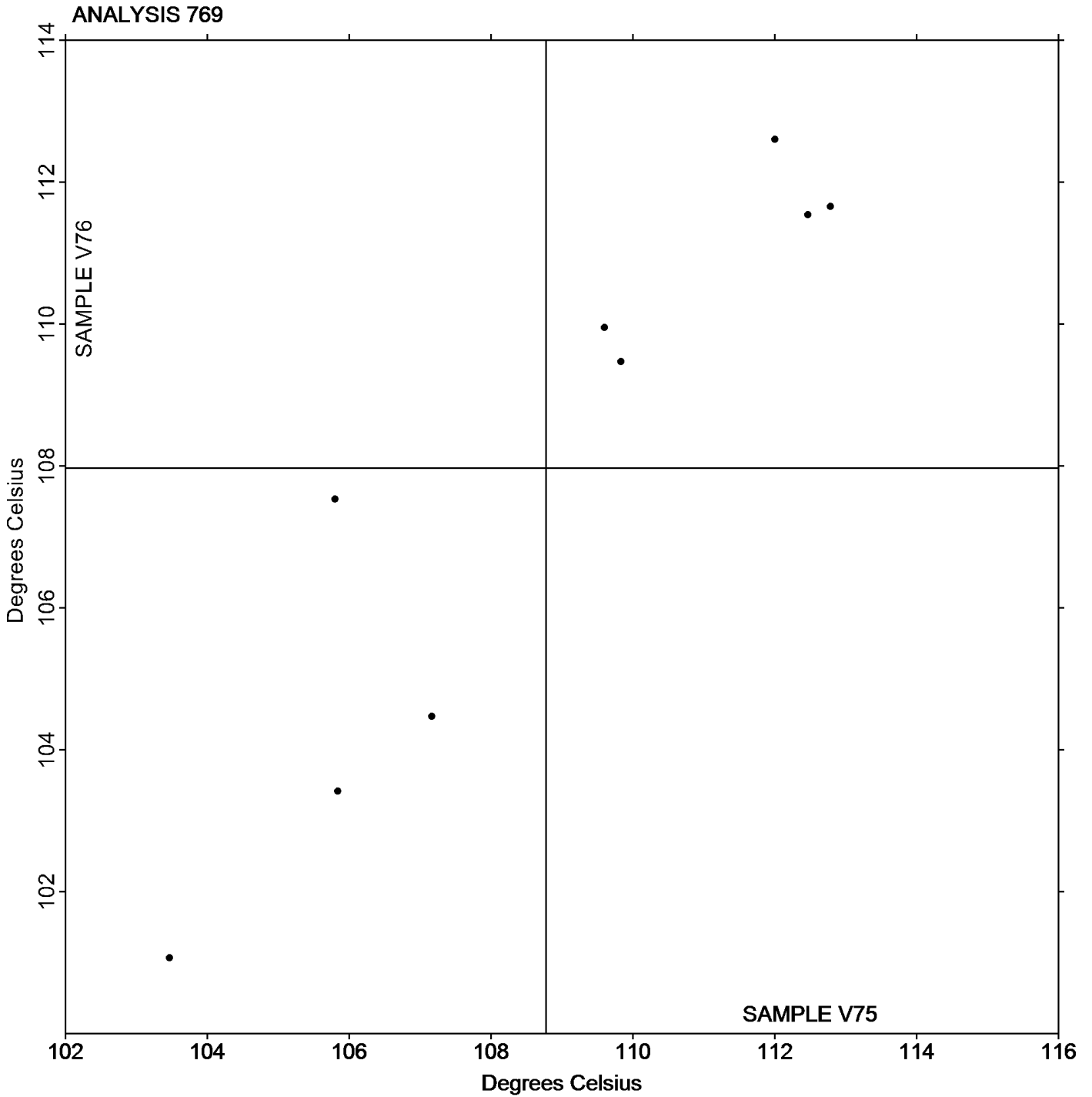
Sample V75: ABS & Sample V76: ABS

Key to Instrument Codes Reported by Participants

- NZ Netzsch Instruments
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



Grand Mean Sample V75: 108.77 Degrees Celsius Grand Mean Sample V76: 107.97 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 #118

Analysis 770

2nd Qtr 2021

Tensile Stress at Yield, Film Samples - psi

WebCode	Data Flag	Sample B75			Sample B76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		1,982	-140	-0.27	1,988	-144	-0.28	IN
2VQDJN		2,136	15	0.03	2,117	-14	-0.03	IN
62JXWF		1,994	-128	-0.25	1,874	-258	-0.49	MT
64A9LM		2,038	-84	-0.16	2,063	-69	-0.13	OA
8XXWQY		2,095	-27	-0.05	1,976	-155	-0.30	LI
ABXFFN		1,949	-172	-0.34	2,017	-115	-0.22	IN
AD4MWV		1,455	-667	-1.30	1,455	-677	-1.30	IN
C4PV7N	*	3,159	1,038	2.03	3,412	1,280	2.45	UC
C6ZBZP		1,945	-177	-0.34	2,075	-57	-0.11	IN
GJMFQ9		1,762	-360	-0.70	1,833	-299	-0.57	IN
JUFJAT		1,847	-275	-0.54	1,864	-268	-0.51	IN
M6MPDH		1,962	-159	-0.31	1,996	-136	-0.26	SH
MEP3EH		2,013	-109	-0.21	2,002	-130	-0.25	IN
P7P8PJ	*	3,548	1,427	2.79	3,405	1,273	2.44	IN
PKN8GL		1,944	-178	-0.35	1,943	-189	-0.36	IN
RLTKU7		2,116	-6	-0.01	2,086	-45	-0.09	MT

Summary Statistics		Sample B75	Sample B76
Grand Means		2,121.5 psi	2,131.5 psi
Stnd Dev Btwn Labs		512.3 psi	521.8 psi
Statistics based on 16 of 16 reporting participants			

Sample B75: LDPE & Sample B76: LDPE

Key to Instrument Codes Reported by Participants

IN	Instron	LI	Lloyd Instruments
MT	MTS/Sintech	OA	Oakland Testing
SH	Shimadzu	UC	United



Plastics Interlaboratory Testing Program

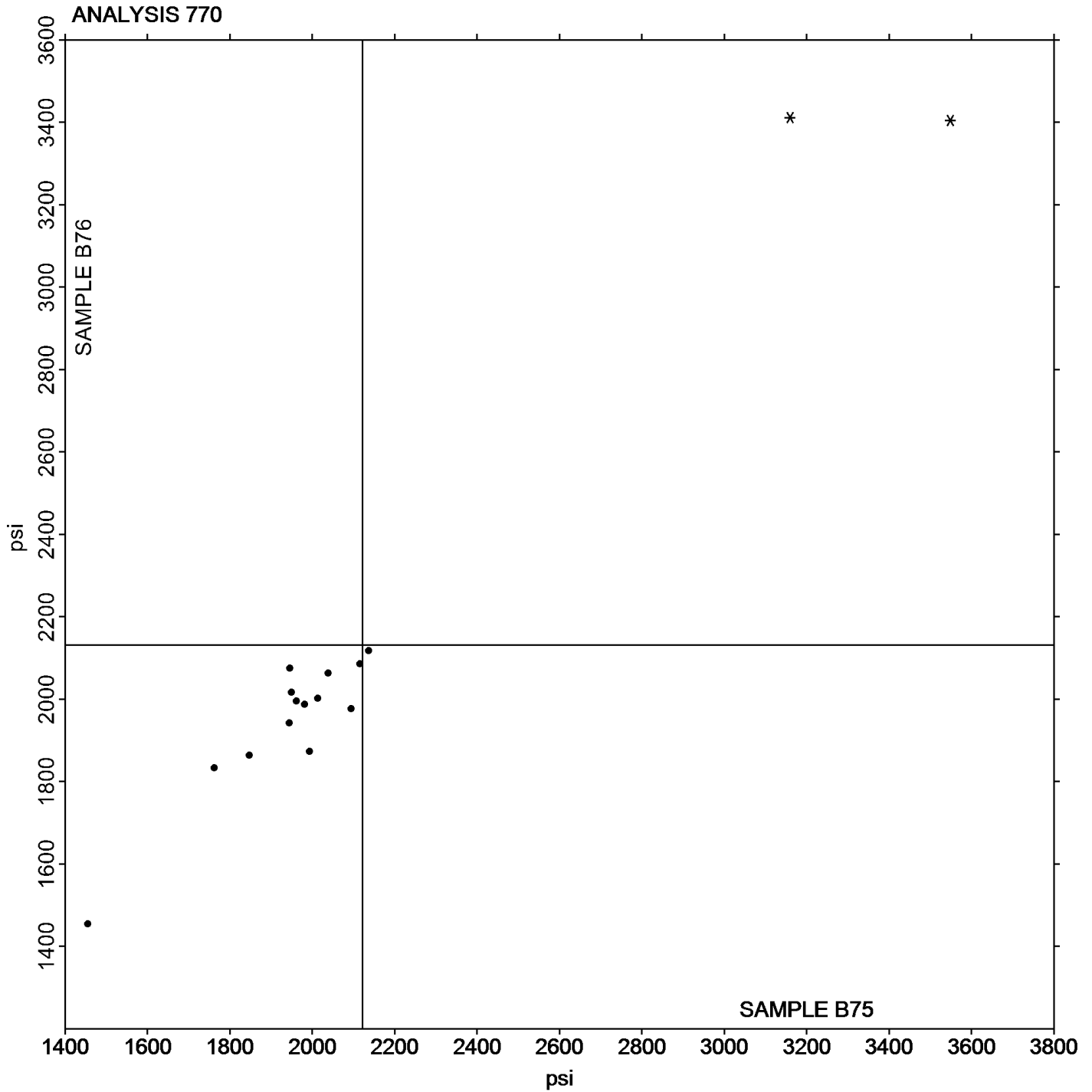
Analysis 770

Tensile Stress at Yield, Film Samples - psi

Report #118

2nd Qtr 2021

Grand Mean Sample B75: 2,121.52 psi Grand Mean Sample B76: 2,131.53 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 #118

Analysis 771

2nd Qtr 2021

Tensile Stress at Break, Film Samples - psi

WebCode	Data Flag	Sample B75			Sample B76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		3,919	515	1.28	3,767	371	0.91	IN
2VQDJN		3,707	303	0.75	3,660	264	0.65	IN
62JXWF	X	460	-2,944	-7.29	431	-2,965	-7.25	MT
64A9LM		3,698	294	0.73	3,595	199	0.49	OA
7DURMY		3,661	257	0.64	3,567	171	0.42	SH
8XXWQY		2,969	-434	-1.08	2,652	-744	-1.82	LI
ABXFFN		3,391	-13	-0.03	3,744	348	0.85	IN
AD4MWV		2,694	-709	-1.76	2,756	-640	-1.57	IN
BF4DGF		3,118	-285	-0.71	3,069	-327	-0.80	IN
C4PV7N		3,159	-244	-0.61	3,412	16	0.04	UC
C6ZBZP		3,062	-341	-0.85	3,310	-86	-0.21	IN
GJMFQ9		2,625	-778	-1.93	2,571	-825	-2.02	IN
H8G2WL	X	305	-3,098	-7.68	395	-3,001	-7.34	TH
JUFJAT		3,317	-87	-0.22	3,280	-116	-0.28	IN
M6MPDH		3,683	279	0.69	3,677	281	0.69	SH
MEP3EH		3,858	455	1.13	3,813	417	1.02	IN
P7P8PJ		3,535	132	0.33	3,363	-33	-0.08	IN
PKN8GL		3,823	420	1.04	3,720	324	0.79	IN
RLTKU7		3,641	237	0.59	3,775	379	0.93	MT

Summary Statistics		
	Sample B75	Sample B76
Grand Means	3,403.6 psi	3,396.0 psi
Stnd Dev Btwn Labs	403.7 psi	408.7 psi
Statistics based on 17 of 19 reporting participants		

Sample B75: LDPE & Sample B76: LDPE

Comments on Assigned Data Flags for Test #771

62JXWF (X) - Extreme data.

H8G2WL (X) - Extreme data.

Key to Instrument Codes Reported by Participants

IN Instron	LI Lloyd Instruments
MT MTS/Sintech	OA Oakland Testing
SH Shimadzu	TH Thwing Albert
UC United	



Plastics Interlaboratory Testing Program

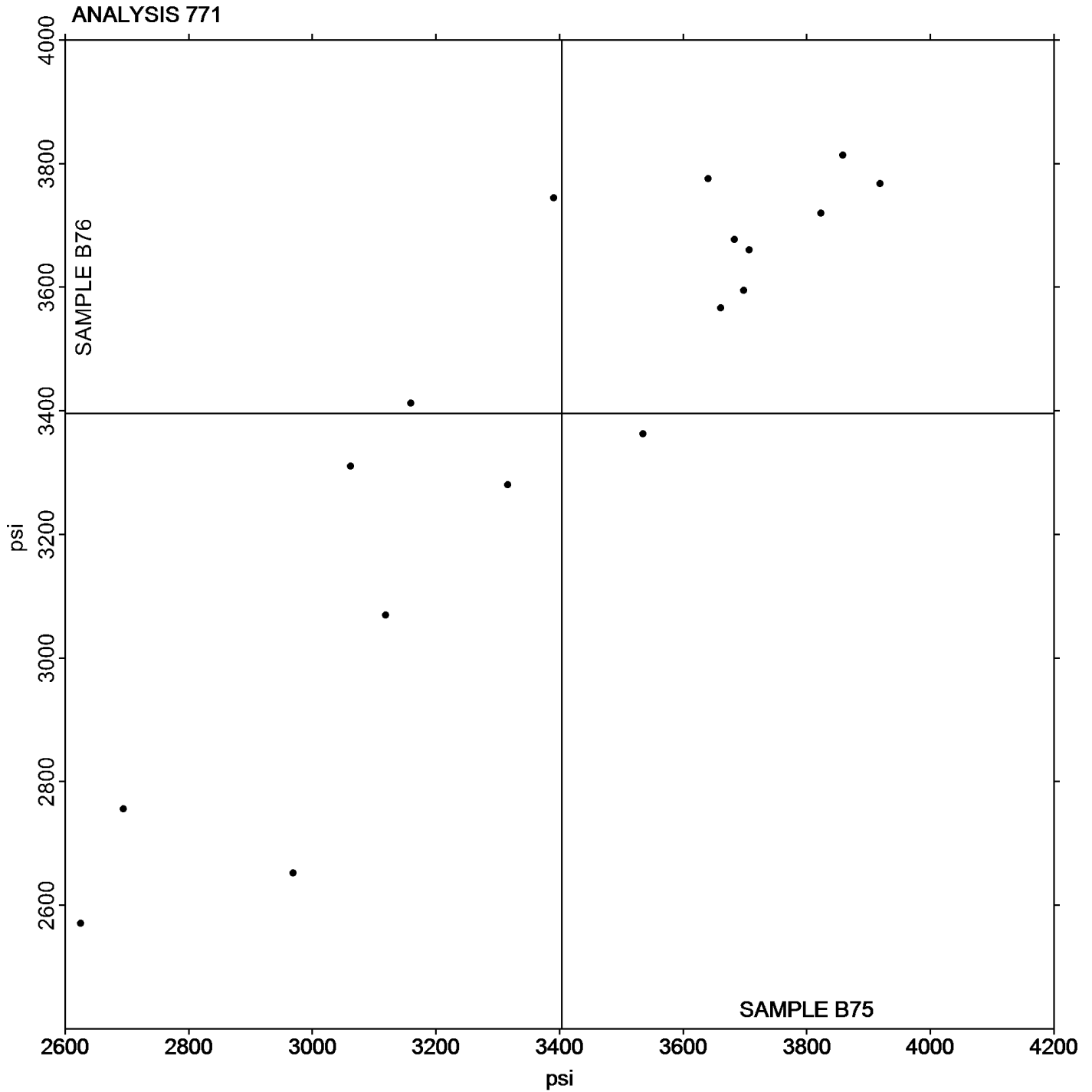
Report #118

Analysis 771

2nd Qtr 2021

Tensile Stress at Break, Film Samples - psi

Grand Mean Sample B75: 3,403.56 psi Grand Mean Sample B76: 3,395.97 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 #118

Analysis 772

2nd Qtr 2021

Percent Elongation at Yield, Films

WebCode	Data Flag	Sample B75			Sample B76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX	X	27.32	-61.02	-4.15	26.77	-61.74	-3.82	IN
2VQDJN		75.83	-12.51	-0.85	76.32	-12.20	-0.75	IN
62JXWF		71.64	-16.70	-1.13	66.65	-21.86	-1.35	MT
8XXWQY		80.71	-7.63	-0.52	81.80	-6.71	-0.41	LI
ABXFFN		69.79	-18.55	-1.26	71.73	-16.78	-1.04	IN
AD4MWV		82.97	-5.37	-0.36	86.03	-2.48	-0.15	IN
C6ZBZP		103.90	15.56	1.06	116.46	27.95	1.73	IN
GJMFQ9		117.25	28.91	1.96	118.24	29.73	1.84	IN
H8G2WL		88.35	0.01	0.00	91.71	3.20	0.20	TH
JUFJAT		98.24	9.90	0.67	92.41	3.90	0.24	IN
M6MPDH		90.71	2.37	0.16	91.42	2.91	0.18	SH
MEP3EH		106.21	17.87	1.21	100.21	11.70	0.72	IN
P7P8PJ	X	737.32	648.98	44.11	678.83	590.32	36.48	IN
PKN8GL		73.21	-15.13	-1.03	69.91	-18.60	-1.15	IN
RLTKU7		89.60	1.26	0.09	87.80	-0.71	-0.04	MT

Summary Statistics		
	Sample B75	Sample B76
Grand Means	88.339 Percent	88.515 Percent
Stnd Dev Btwn Labs	14.713 Percent	16.180 Percent
Statistics based on 13 of 15 reporting participants		

Sample B75: LDPE & Sample B76: LDPE

Note: Results for test 772 exhibit higher variability than historical averages. Use caution when interpreting results.

Comments on Assigned Data Flags for Test #772

2T32GX (X) - Extreme data.

P7P8PJ (X) - Extreme data.

Key to Instrument Codes Reported by Participants

IN	Instron	LI	Lloyd Instruments
MT	MTS/Sintech	SH	Shimadzu
TH	Thwing Albert		



Plastics Interlaboratory Testing Program

Report #118

Analysis 773

2nd Qtr 2021

Percent Elongation at Break, Film Samples

WebCode	Data Flag	Sample B75			Sample B76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		667.2	-60.4	-0.42	639.0	-84.5	-0.61	IN
2VQDJN		635.2	-92.5	-0.64	669.4	-54.2	-0.39	IN
62JXWF	*	344.6	-383.0	-2.66	412.3	-311.3	-2.25	MT
64A9LM		762.5	34.9	0.24	758.3	34.7	0.25	OA
7DURMY		799.4	71.8	0.50	795.2	71.6	0.52	SH
8XXWQY		636.9	-90.7	-0.63	579.0	-144.6	-1.05	LI
ABXFFN		598.5	-129.1	-0.90	629.4	-94.2	-0.68	IN
AD4MWV		756.8	29.2	0.20	759.2	35.7	0.26	IN
BF4DGF		927.4	199.8	1.39	947.7	224.1	1.62	IN
C4PV7N	X	17.5	-710.2	-4.93	18.5	-705.0	-5.10	UC
C6ZBZP		700.2	-27.4	-0.19	717.4	-6.2	-0.04	IN
GJMFQ9		751.8	24.2	0.17	679.4	-44.2	-0.32	IN
H8G2WL		993.3	265.7	1.84	1,009.0	285.4	2.07	TH
JUFJAT		834.5	106.9	0.74	820.1	96.5	0.70	IN
M6MPDH		823.1	95.4	0.66	802.3	78.7	0.57	SH
MEP3EH		844.7	117.1	0.81	846.3	122.7	0.89	IN
P7P8PJ		737.5	9.8	0.07	679.5	-44.1	-0.32	IN
PKN8GL		663.5	-64.1	-0.44	633.4	-90.2	-0.65	IN
RLTKU7		620.5	-107.1	-0.74	647.4	-76.2	-0.55	MT

Summary Statistics		
	Sample B75	Sample B76
Grand Means	727.65 Percent	723.57 Percent
Stnd Dev Btwn Labs	144.06 Percent	138.16 Percent
Statistics based on 18 of 19 reporting participants		

Sample B75: LDPE & Sample B76: LDPE

Comments on Assigned Data Flags for Test #773

C4PV7N (X) - Extreme data.

Key to Instrument Codes Reported by Participants

IN	Instron	LI	Lloyd Instruments
MT	MTS/Sintech	OA	Oakland Testing
SH	Shimadzu	TH	Thwing Albert
UC	United		



Plastics Interlaboratory Testing Program

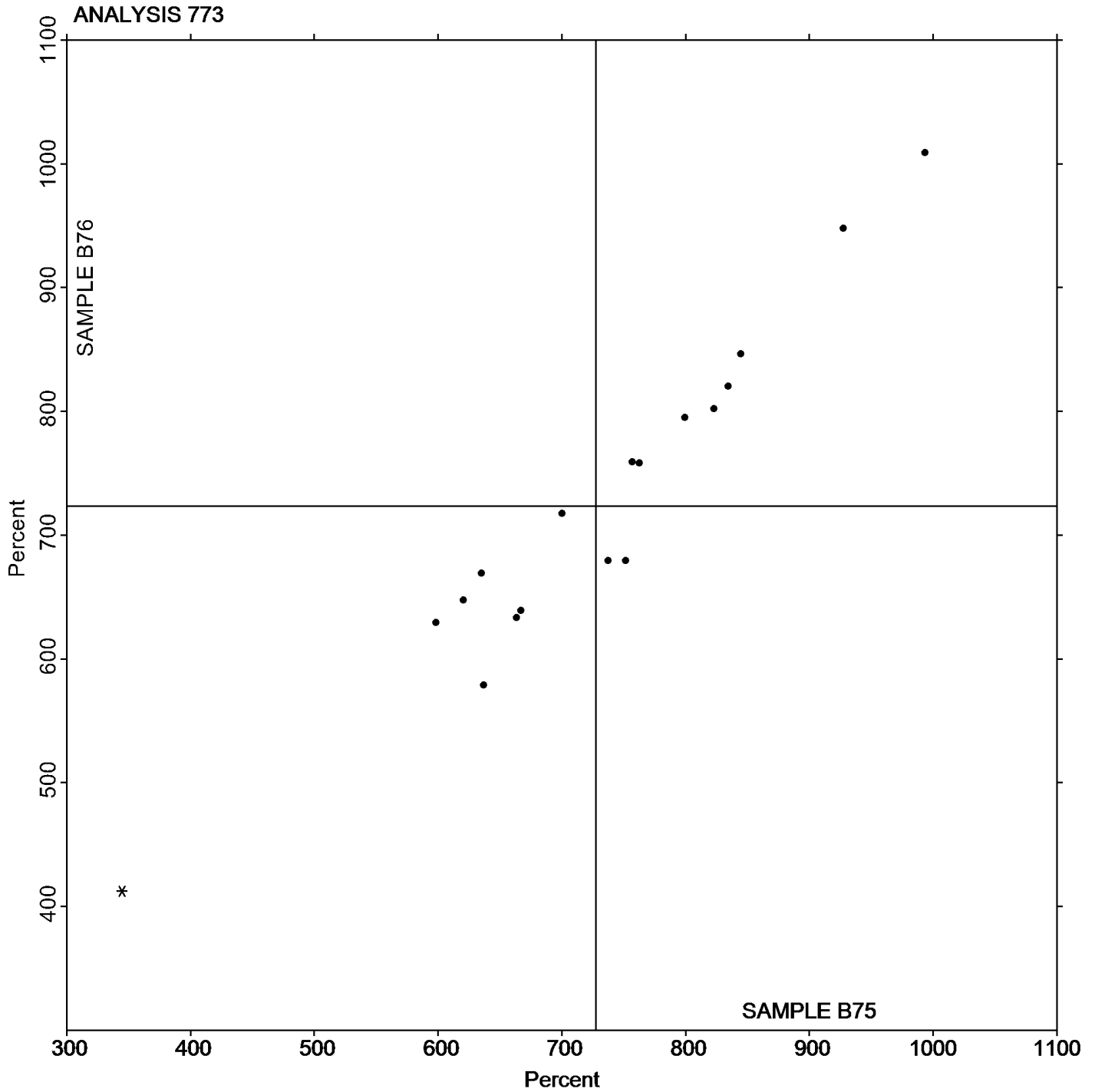
Analysis 773

Percent Elongation at Break, Film Samples

Report #118

2nd Qtr 2021

Grand Mean Sample B75: 727.65 Percent Grand Mean Sample B76: 723.57 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 #118

Analysis 774

2nd Qtr 2021

Thickness of Film Tensile Samples - mils

WebCode	Data Flag	Sample B75			Sample B76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2T32GX		2.8040	0.0426	0.35	2.7430	0.0490	0.55
2VQDJN		2.6620	-0.0994	-0.82	2.5620	-0.1320	-1.49
62JXWF		2.7930	0.0316	0.26	2.6050	-0.0890	-1.01
64A9LM		2.7140	-0.0474	-0.39	2.7660	0.0720	0.81
7DURMY		2.7283	-0.0330	-0.27	2.6339	-0.0602	-0.68
8XXWQY		2.5934	-0.1680	-1.39	2.6638	-0.0302	-0.34
ABXFFN		2.8830	0.1216	1.00	2.7450	0.0510	0.58
AD4MWV		2.7200	-0.0414	-0.34	2.7600	0.0660	0.74
B3Z3XZ		2.6520	-0.1094	-0.90	2.6860	-0.0080	-0.09
BF4DGF		2.6890	-0.0724	-0.60	2.7559	0.0619	0.70
C4PV7N		2.7300	-0.0314	-0.26	2.6400	-0.0540	-0.61
C6ZBZP		2.7900	0.0286	0.24	2.6650	-0.0290	-0.33
GJMFQ9	*	3.1400	0.3786	3.13	2.8700	0.1760	1.99
H8G2WL		2.9290	0.1676	1.38	2.6530	-0.0410	-0.46
JUFJAT		2.8290	0.0676	0.56	2.7680	0.0740	0.84
M6MPDH		2.6477	-0.1137	-0.94	2.4599	-0.2341	-2.64
MEP3EH		2.8300	0.0686	0.57	2.7700	0.0760	0.86
P39VVM		2.6570	-0.1044	-0.86	2.7360	0.0420	0.47
P7P8PJ		2.7835	0.0221	0.18	2.6457	-0.0483	-0.55
PKN8GL		2.7441	-0.0172	-0.14	2.7363	0.0422	0.48
RLTKU7		2.6700	-0.0914	-0.75	2.7100	0.0160	0.18

Summary Statistics		Sample B75	Sample B76
Grand Means		2.76138 mils	2.69402 mils
Stnd Dev Btwn Labs		0.12113 mils	0.08858 mils
Statistics based on 21 of 21 reporting participants			

Sample B75: LDPE & Sample B76: LDPE



Plastics Interlaboratory Testing Program

Report #118

Analysis 775

2nd Qtr 2021

Secant Modulus at 1% Strain - psi

WebCode	Data Flag	Sample B75			Sample B76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		35,631	3,845	0.78	36,574	5,199	1.18	IN
2VQDJN		29,655	-2,131	-0.43	28,759	-2,616	-0.59	IN
62JXWF		27,891	-3,895	-0.79	28,685	-2,691	-0.61	MT
64A9LM		34,319	2,533	0.51	33,881	2,505	0.57	OA
8XXWQY		36,471	4,685	0.95	33,009	1,633	0.37	LI
ABXFFN		33,709	1,922	0.39	33,053	1,678	0.38	IN
BF4DGF		19,464	-12,323	-2.50	20,506	-10,870	-2.46	IN
GJMFQ9		29,995	-1,791	-0.36	29,853	-1,523	-0.34	IN
H8G2WL	X	13,114	-18,672	-3.78	9,934	-21,441	-4.85	TH
JUFJAT		30,464	-1,323	-0.27	29,988	-1,388	-0.31	IN
M6MPDH		38,232	6,446	1.31	37,348	5,972	1.35	SH
MEP3EH		33,580	1,794	0.36	33,465	2,089	0.47	IN
P7P8PJ		32,022	236	0.05	31,387	12	0.00	IN

Summary Statistics

	Sample B75	Sample B76
Grand Means	31,786.1 psi	31,375.6 psi
Stnd Dev Btwn Labs	4,937.7 psi	4,424.1 psi

Statistics based on 12 of 13 reporting participants

Sample B75: LDPE & Sample B76: LDPE

Comments on Assigned Data Flags for Test #775

H8G2WL (X) - Extreme data.

Key to Instrument Codes Reported by Participants

IN	Instron	LI	Lloyd Instruments
MT	MTS/Sintech	OA	Oakland Testing
SH	Shimadzu	TH	Thwing Albert



Plastics Interlaboratory Testing Program

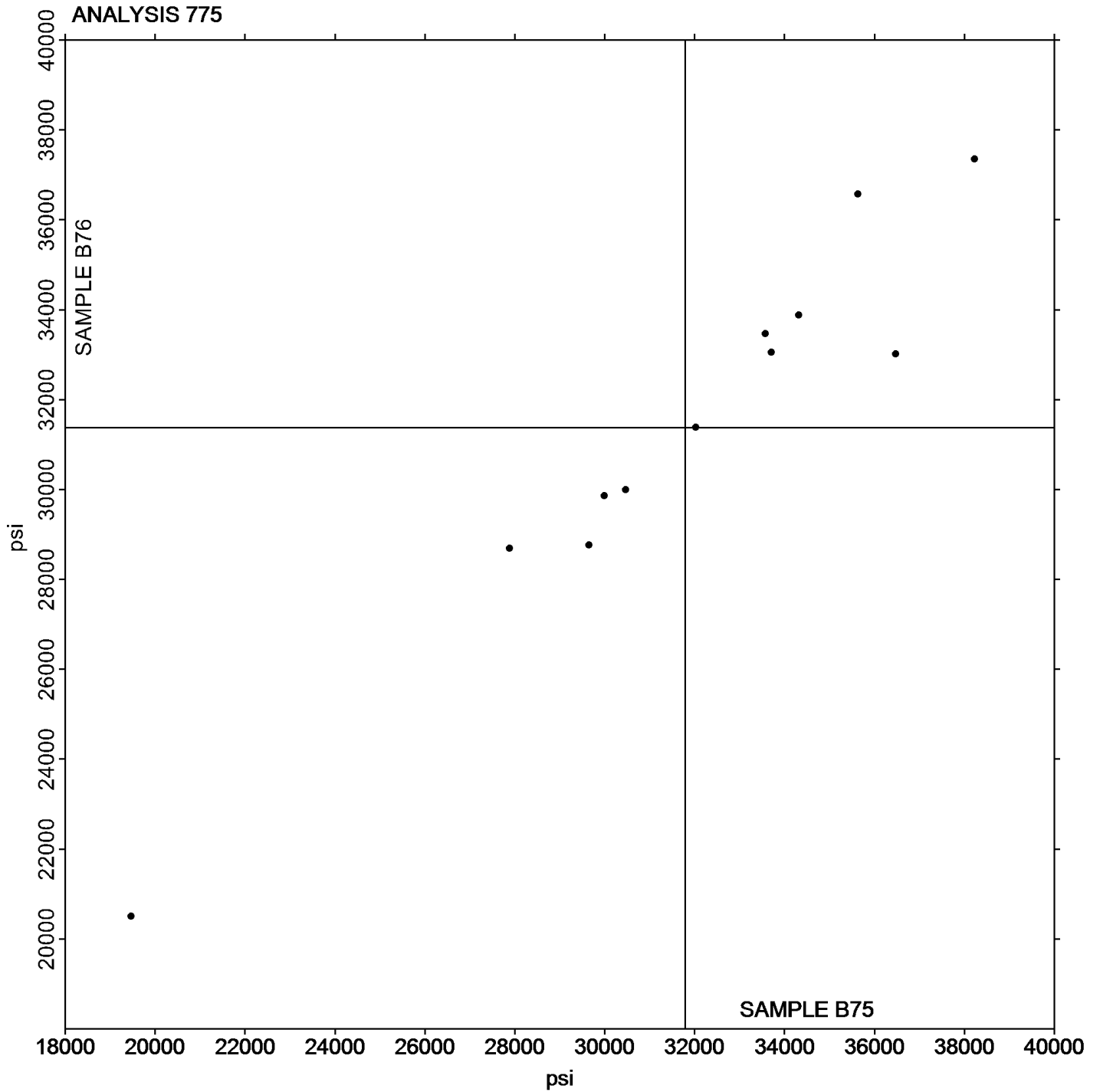
Report #118

Analysis 775

2nd Qtr 2021

Secant Modulus at 1% Strain - psi

Grand Mean Sample B75: 31,786.11 psi Grand Mean Sample B76: 31,375.57 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 #118

Analysis 776

2nd Qtr 2021

Secant Modulus at 2% Strain - psi

WebCode	Data Flag	Sample B75			Sample B76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		29,555	2,226	0.43	30,242	3,275	0.69	IN
2VQDJN		27,104	-225	-0.04	26,879	-89	-0.02	MT
62JXWF		25,097	-2,231	-0.43	25,525	-1,443	-0.30	MT
8XXWQY		31,337	4,008	0.78	28,252	1,284	0.27	LI
BF4DGF		22,277	-5,051	-0.98	21,333	-5,635	-1.19	IN
GJMFQ9		25,172	-2,156	-0.42	24,941	-2,027	-0.43	IN
H8G2WL		17,209	-10,119	-1.97	18,677	-8,291	-1.74	TH
JUFJAT		25,436	-1,892	-0.37	25,043	-1,925	-0.40	IN
M6MPDH		29,762	2,434	0.47	28,993	2,026	0.43	SH
MEP3EH		28,919	1,591	0.31	28,870	1,902	0.40	IN
P7P8PJ		27,762	434	0.08	27,019	52	0.01	IN
RLTKU7		38,310	10,982	2.13	37,840	10,872	2.29	MT

Summary Statistics

	Sample B75	Sample B76
Grand Means	27,328.3 psi	26,967.8 psi
Std Dev Btwn Labs	5,147.2 psi	4,754.9 psi
Statistics based on 12 of 12 reporting participants		

Sample B75: LDPE & Sample B76: LDPE

Key to Instrument Codes Reported by Participants

IN	Instron	LI	Lloyd Instruments
MT	MTS/Sintech	SH	Shimadzu
TH	Thwing Albert		



Plastics Interlaboratory Testing Program

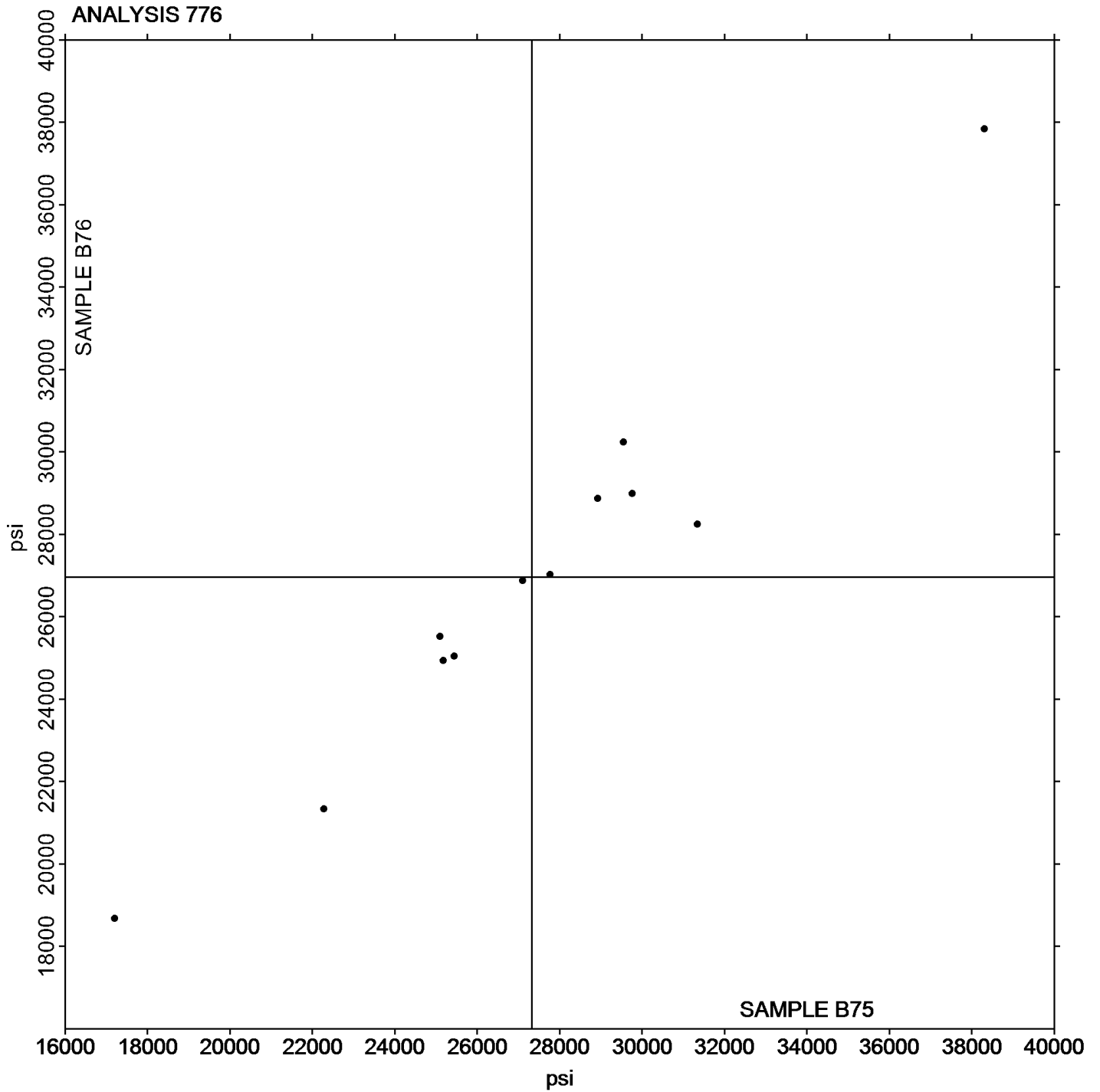
Report #118

Analysis 776

2nd Qtr 2021

Secant Modulus at 2% Strain - psi

Grand Mean Sample B75: 27,328.32 psi Grand Mean Sample B76: 26,967.78 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 #118

Analysis 780

2nd Qtr 2021

Coefficient of Static Friction

WebCode	Data Flag	Sample P75			Sample P76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		0.1100	-0.0588	-1.20	0.1100	-0.0588	-1.34	TH
2VQDJN		0.1500	-0.0188	-0.38	0.1540	-0.0148	-0.34	MI
62JXWF		0.1942	0.0254	0.52	0.1810	0.0122	0.28	MT
64A9LM		0.1858	0.0170	0.35	0.1820	0.0132	0.30	DY
7DURMY		0.2180	0.0492	1.00	0.2320	0.0632	1.44	SA
ABXFFN		0.1348	-0.0340	-0.69	0.1310	-0.0378	-0.86	TH
BLWBCY		0.1713	0.0025	0.05	0.1527	-0.0161	-0.37	IG
M6MPDH		0.1924	0.0237	0.48	0.1985	0.0297	0.68	SA
MEP3EH		0.2404	0.0716	1.46	0.2186	0.0498	1.14	TM
QG9W4H		0.1360	-0.0328	-0.67	0.1060	-0.0628	-1.44	KA
THNC4Z		0.1650	-0.0038	-0.08	0.1622	-0.0066	-0.15	TH
UDCN8B		0.2284	0.0596	1.22	0.2358	0.0670	1.53	IS
YCNYPD		0.0678	-0.1010	-2.06	0.1307	-0.0381	-0.87	IG

Summary Statistics

	Sample P75	Sample P76
Grand Means	0.16878 COF	0.16881 COF
Std Dev Btwn Labs	0.04904 COF	0.04375 COF

Statistics based on 13 of 13 reporting participants

Sample P75: LDPE & Sample P76: LDPE

Key to Instrument Codes Reported by Participants

DY	Dynisco Model D1055	IG	Instron
IS	Instron 5000 Series	KA	Kayeness Inc.
MI	MTS Insight	MT	MTS Q-Test
SA	Shimadzu Autograph	TH	Thwing Albert Friction/Peel Tester Model 225-1
TM	TMI Slip and Friction Tester		



Plastics Interlaboratory Testing Program

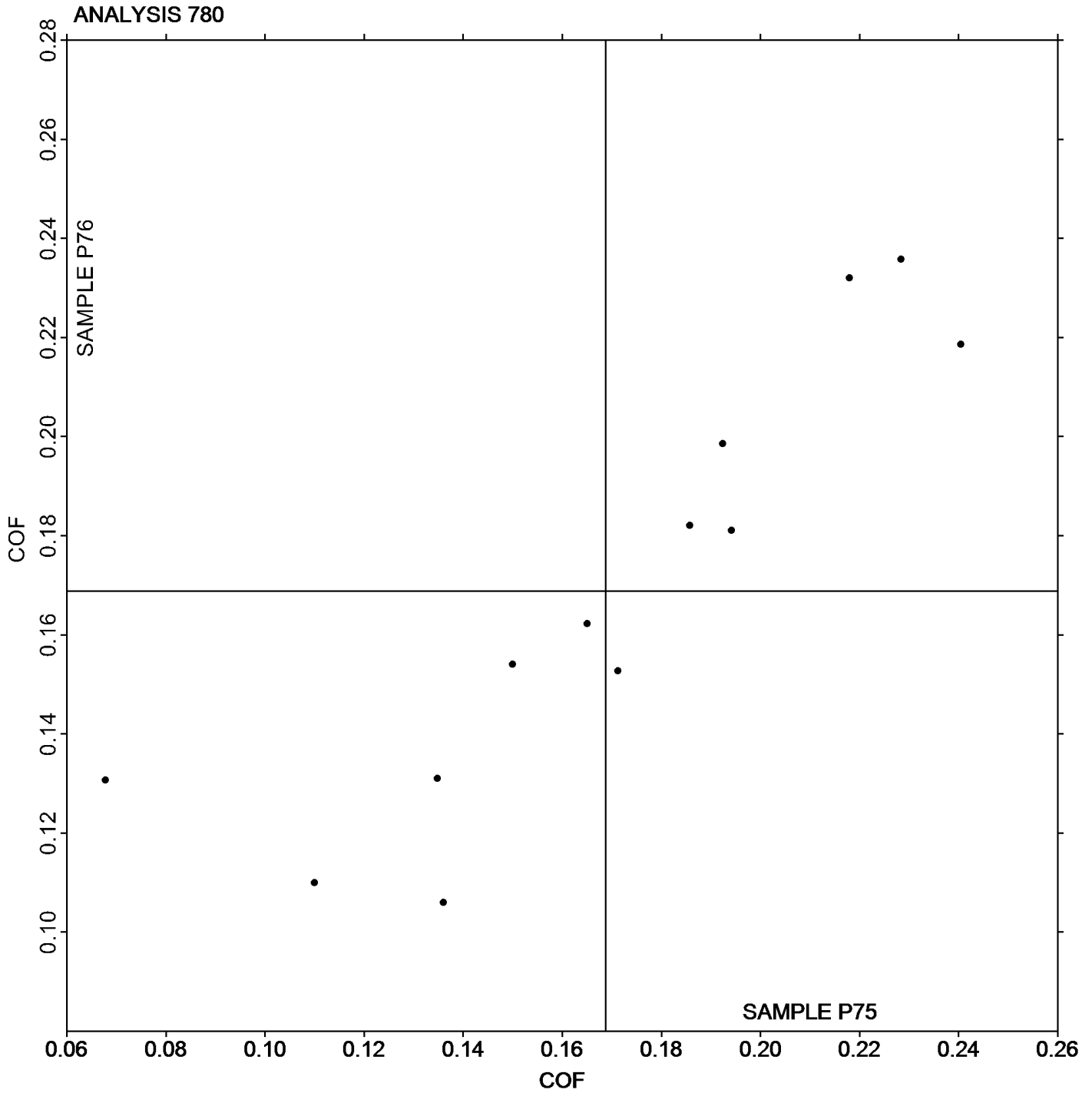
Analysis 780

Coefficient of Static Friction

Report #118

2nd Qtr 2021

Grand Mean Sample P75: 0.16878 COF Grand Mean Sample P76: 0.16881 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 #118

Analysis 781

2nd Qtr 2021

Coefficient of Kinetic Friction

WebCode	Data Flag	Sample P75			Sample P76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		0.0820	-0.0211	-0.46	0.0820	-0.0332	-0.72	TH
2VQDJN		0.0820	-0.0211	-0.46	0.0820	-0.0332	-0.72	MI
62JXWF		0.1348	0.0317	0.69	0.1330	0.0178	0.39	MT
64A9LM		0.1422	0.0391	0.85	0.1410	0.0258	0.56	DY
7DURMY		0.1300	0.0269	0.59	0.1360	0.0208	0.45	SA
ABXFFN		0.1202	0.0171	0.37	0.1174	0.0022	0.05	TH
BLWBCY		0.0952	-0.0078	-0.17	0.0928	-0.0225	-0.49	IG
M6MPDH		0.0837	-0.0193	-0.42	0.0857	-0.0295	-0.64	SA
MEP3EH		0.0984	-0.0047	-0.10	0.1002	-0.0150	-0.33	TM
QG9W4H		0.0920	-0.0111	-0.24	0.0900	-0.0252	-0.55	KA
THNC4Z		0.0344	-0.0687	-1.49	0.0416	-0.0736	-1.60	TH
UDCN8B		0.2088	0.1057	2.30	0.2102	0.0950	2.07	IS
YCNYPD	*	0.0361	-0.0670	-1.46	0.1862	0.0710	1.54	IG

Summary Statistics

	Sample P75	Sample P76
Grand Means	0.10306 COF	0.11524 COF
Std Dev Btwn Labs	0.04601 COF	0.04596 COF

Statistics based on 13 of 13 reporting participants

Sample P75: LDPE & Sample P76: LDPE

Key to Instrument Codes Reported by Participants

DY	Dynisco Model D1055	IG	Instron
IS	Instron 5000 Series	KA	Kayeness Inc.
MI	MTS Insight	MT	MTS Q-Test
SA	Shimadzu Autograph	TH	Thwing Albert Friction/Peel Tester Model 225-1
TM	TMI Slip and Friction Tester		



Plastics Interlaboratory Testing Program

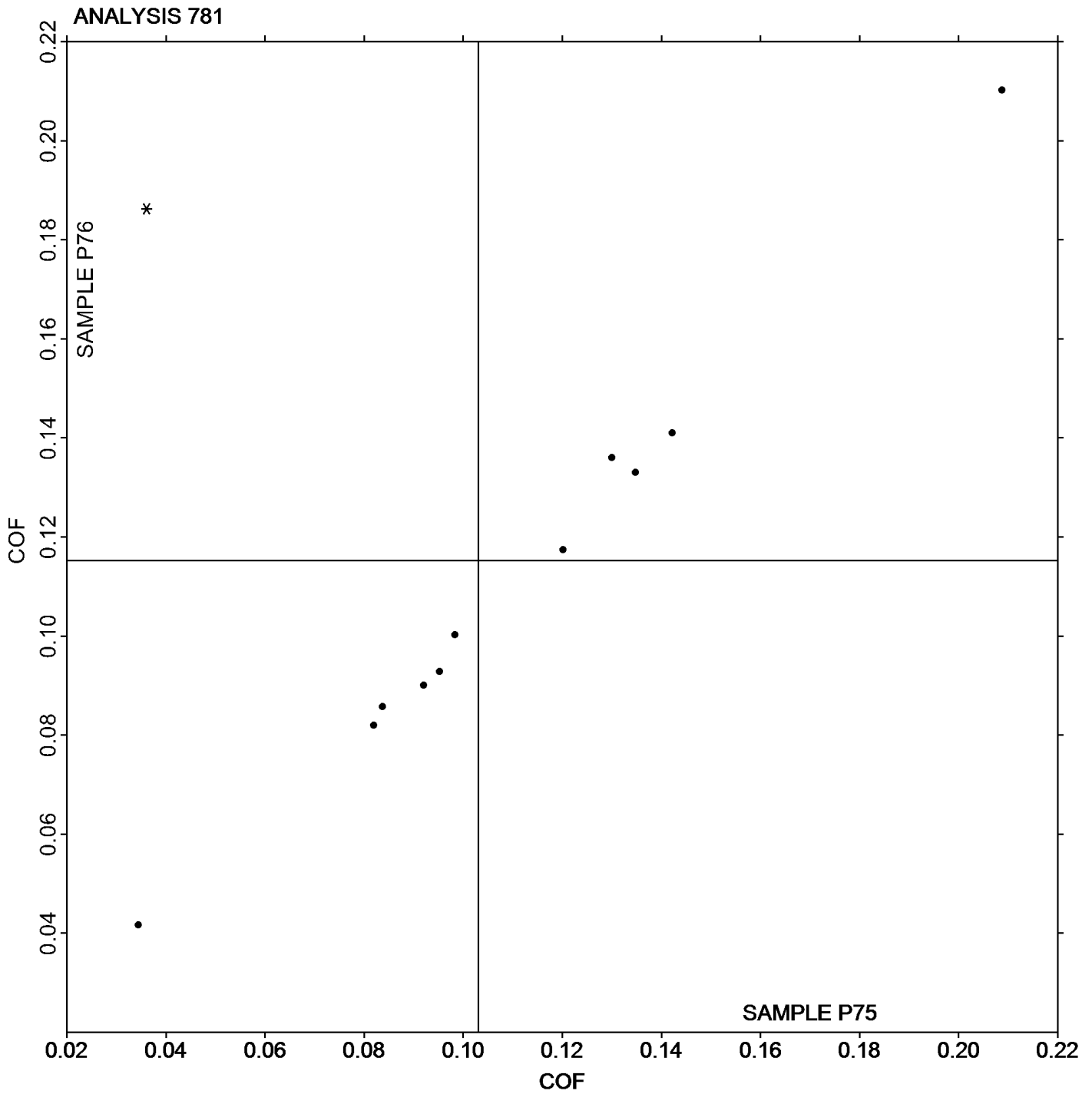
Analysis 781

Coefficient of Kinetic Friction

Report #118

2nd Qtr 2021

Grand Mean Sample P75: 0.10306 COF Grand Mean Sample P76: 0.11524 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 #118

Analysis 782

2nd Qtr 2021

Tear Resistance of Films

WebCode	Data Flag	Sample Q75			Sample Q76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		387.6	60.0	1.10	334.5	29.5	0.96	TM
2VQDJN		307.9	-19.7	-0.36	339.3	34.2	1.12	TE
64A9LM		307.2	-20.4	-0.38	283.9	-21.1	-0.69	TA
ABXFFN		306.2	-21.4	-0.39	302.3	-2.7	-0.09	TE
M6MPDH		240.9	-86.7	-1.60	250.5	-54.6	-1.78	TE
MEP3EH		344.7	17.1	0.31	316.5	11.5	0.37	TM
PKN8GL		398.6	71.0	1.31	308.3	3.3	0.11	SZ

Summary Statistics

	Sample Q75	Sample Q76
Grand Means	327.59 grams-force	305.04 grams-force
Std Dev Btwn Labs	54.34 grams-force	30.59 grams-force
Statistics based on 7 of 7 reporting participants		

Sample Q75: LDPE & Sample Q76: LDPE

Key to Instrument Codes Reported by Participants

SZ Textest FX 3700	TA Thwing-Albert
TE Thwing-Albert Pro Tear	TM TMI No. 83-1100



Plastics Interlaboratory Testing Program

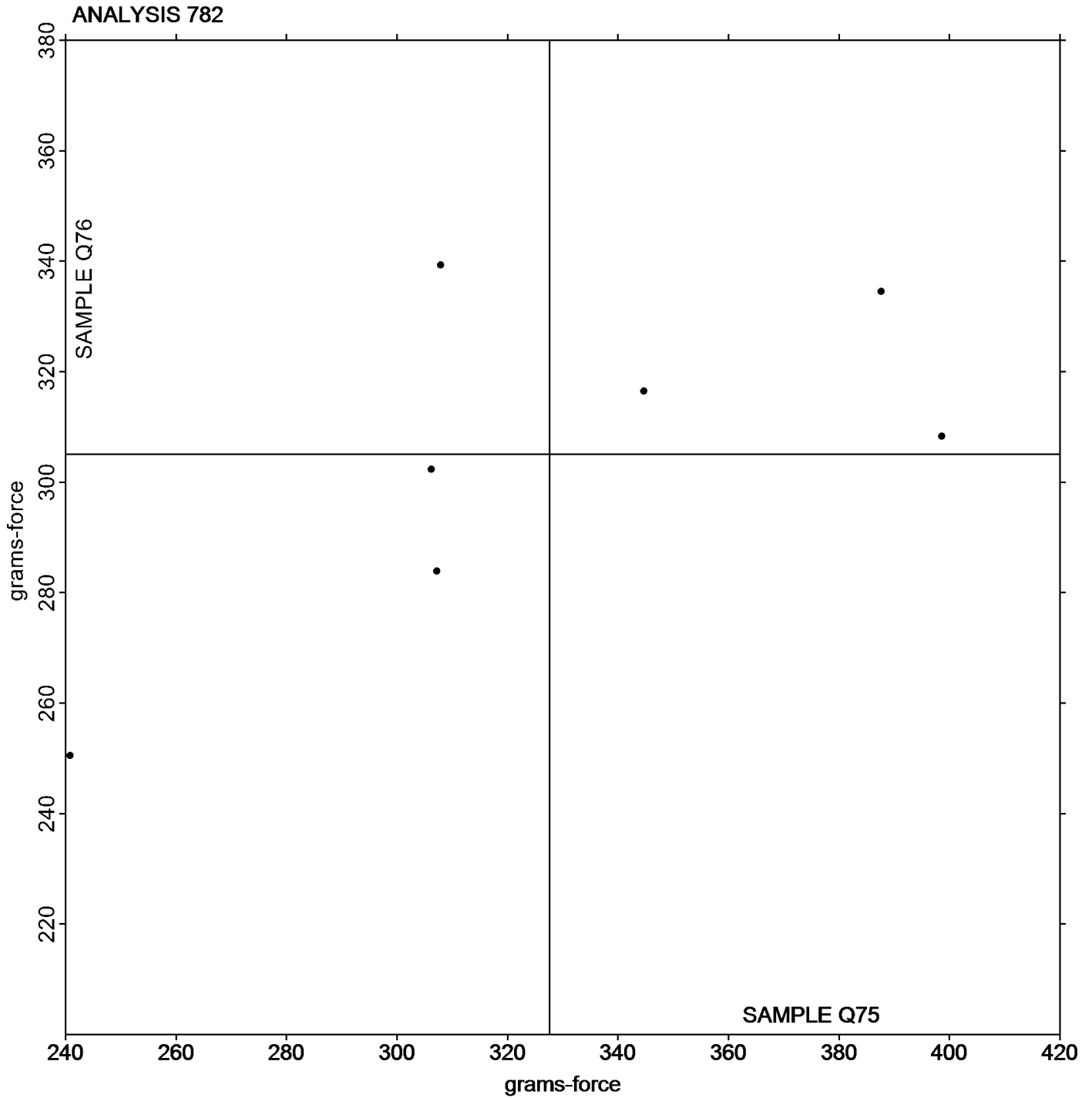
Analysis 782

Tear Resistance of Films

Report #118

2nd Qtr 2021

Grand Mean Sample Q75: 327.59 grams-force Grand Mean Sample Q76: 305.04 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 #118

Analysis 785

2nd Qtr 2021

Percent Haze of Film

WebCode	Data Flag	Sample D75			Sample D76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		20.188	0.410	0.45	20.013	0.174	0.19	BJ
2VQDJN		19.613	-0.165	-0.18	19.900	0.061	0.07	BJ
64A9LM		21.303	1.525	1.68	20.278	0.439	0.47	XR
66KQ6T		19.695	-0.083	-0.09	19.743	-0.096	-0.10	BJ
8WKA7Y		20.768	0.990	1.09	20.350	0.511	0.55	BJ
9CXTQC		21.180	1.402	1.54	21.321	1.482	1.60	XR
ABXFFN		19.125	-0.653	-0.72	19.488	-0.351	-0.38	BJ
BQ42E6		19.856	0.078	0.09	19.959	0.120	0.13	XX
D7RV4Z		19.863	0.085	0.09	19.788	-0.051	-0.06	BJ
EHZ3BK		20.588	0.810	0.89	20.450	0.611	0.66	BJ
GLDDL		19.213	-0.565	-0.62	19.375	-0.464	-0.50	BJ
KV6848		19.745	-0.033	-0.04	19.586	-0.253	-0.27	BJ
M6MPDH		19.250	-0.528	-0.58	19.500	-0.339	-0.37	BJ
MEP3EH		20.563	0.785	0.86	21.288	1.449	1.56	BJ
NH9C6V		17.448	-2.330	-2.57	17.871	-1.968	-2.12	HL
NM2E8A		20.225	0.447	0.49	20.138	0.299	0.32	BJ
P39VVM	*	21.100	1.322	1.46	19.838	-0.001	0.00	BJ
PK9UUA		18.444	-1.334	-1.47	18.820	-1.019	-1.10	XR
PKN8GL		19.425	-0.353	-0.39	19.263	-0.576	-0.62	BJ
QD8TEG		20.620	0.842	0.93	21.151	1.312	1.42	BJ
QQT3E		19.550	-0.228	-0.25	19.463	-0.376	-0.41	BJ
THNC4Z		20.163	0.385	0.42	20.913	1.074	1.16	BJ
UJHFAF		19.136	-0.642	-0.71	19.169	-0.670	-0.72	XR
VGCC4C		19.250	-0.528	-0.58	19.200	-0.639	-0.69	BJ
VGPQPZ		19.375	-0.403	-0.44	18.975	-0.864	-0.93	BJ
XBUQ8A		18.750	-1.028	-1.13	18.888	-0.951	-1.03	HL
YL99E8		18.500	-1.278	-1.41	18.590	-1.249	-1.35	HL
YYL7NG	*	21.028	1.250	1.38	22.265	2.426	2.62	XR
ZPQMMD		19.600	-0.178	-0.20	19.750	-0.089	-0.10	BJ



Plastics Interlaboratory Testing Program

Analysis 785

Percent Haze of Film

Report #118

2nd Qtr 2021

Summary Statistics

	<u>Sample D75</u>	<u>Sample D76</u>
Grand Means	19.7779 Percent	19.8389 Percent
Stnd Dev Btwn Labs	0.9085 Percent	0.9260 Percent

Statistics based on 29 of 29 reporting participants

Sample D75: LDPE & Sample D76: LDPE

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

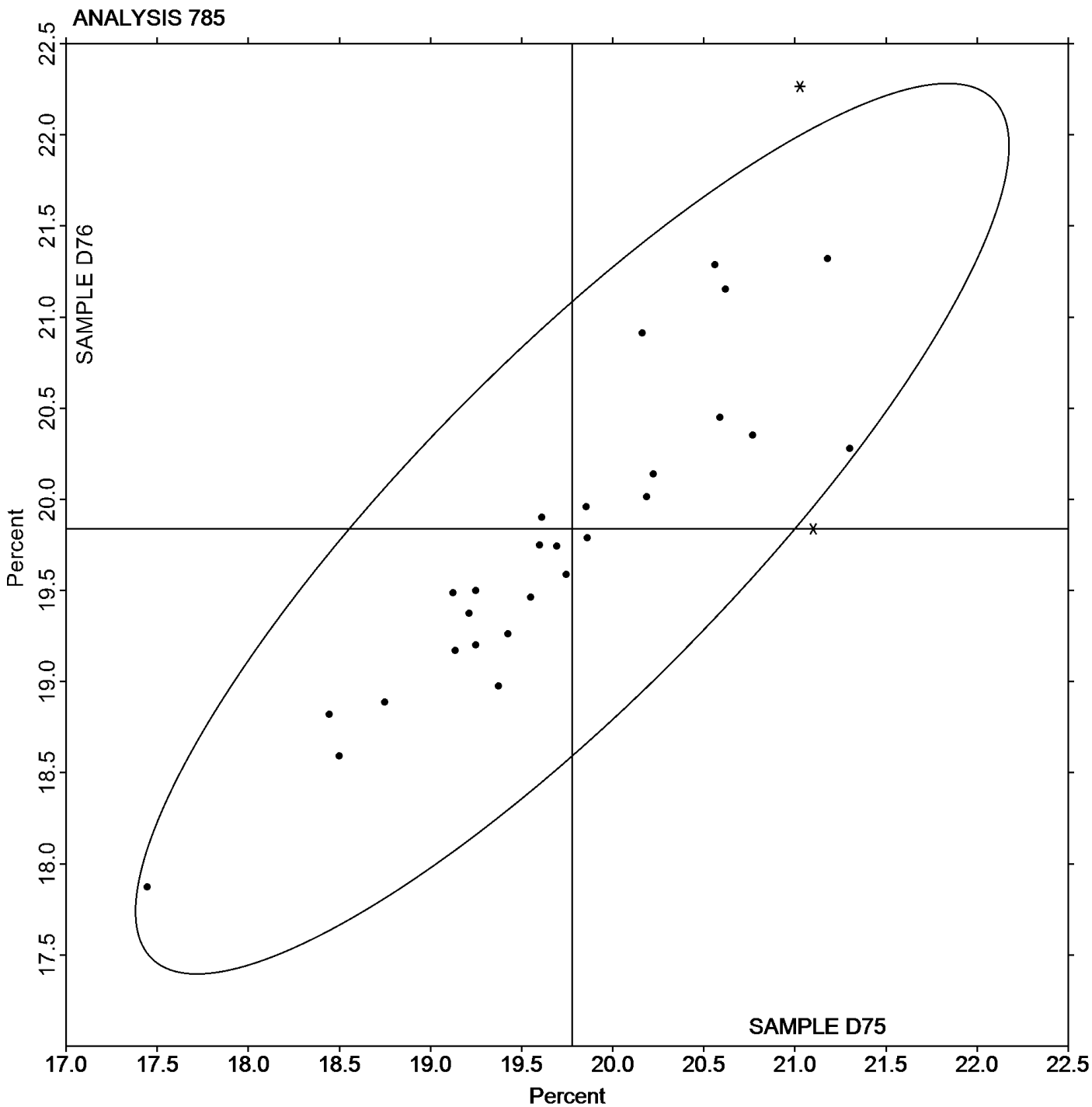
Analysis 785

Percent Haze of Film

Report #118

2nd Qtr 2021

Grand Mean Sample D75: 19.778 Percent Grand Mean Sample D76: 19.839 Percent





Plastics Interlaboratory Testing Program

Report #118

Analysis 786

2nd Qtr 2021

Total Luminous transmittance of film

WebCode	Data Flag	Sample D75			Sample D76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2T32GX		92.66	0.32	0.27	92.66	0.31	0.26	BJ
2VQDJN		92.64	0.30	0.25	92.64	0.29	0.24	BJ
66KQ6T	*	93.81	1.47	1.22	93.54	1.19	1.01	BJ
8WKA7Y		92.72	0.38	0.32	92.70	0.35	0.29	BJ
9CXTQC		92.18	-0.16	-0.13	92.25	-0.11	-0.09	XR
ABXFFN		90.99	-1.35	-1.12	90.98	-1.38	-1.16	BJ
BQ42E6		92.71	0.37	0.31	92.73	0.37	0.32	XX
D7RV4Z		93.83	1.49	1.23	93.83	1.47	1.25	BJ
EHZ3BK		92.70	0.36	0.30	92.73	0.37	0.32	BJ
GLDDLU		93.33	0.99	0.82	93.23	0.87	0.74	BJ
KV6848		93.47	1.13	0.94	93.42	1.07	0.90	BJ
M6MPDH		92.63	0.29	0.24	92.53	0.17	0.15	BJ
MEP3EH		93.39	1.05	0.87	93.34	0.99	0.83	BJ
NH9C6V		90.78	-1.56	-1.30	90.74	-1.61	-1.37	HL
NM2E8A		93.58	1.24	1.03	93.56	1.21	1.02	BJ
P39VVM		93.14	0.80	0.66	93.33	0.97	0.82	BJ
PK9UUA		91.56	-0.78	-0.64	91.61	-0.74	-0.63	XR
PKN8GL		90.61	-1.73	-1.43	90.74	-1.61	-1.37	BJ
QD8TEG	*	90.78	-1.56	-1.30	91.06	-1.29	-1.09	BJ
QQTA3E		93.31	0.97	0.81	93.40	1.05	0.89	BJ
THNC4Z	X	93.88	1.54	1.28	94.49	2.14	1.81	BJ
UJHFAF		91.18	-1.16	-0.96	91.15	-1.20	-1.01	XR
VGCC4C		93.49	1.15	0.95	93.50	1.15	0.97	BJ
VGPQPZ		90.15	-2.19	-1.82	90.16	-2.19	-1.85	BJ
XBUQ8A		90.55	-1.79	-1.48	90.53	-1.83	-1.54	HL
YL99E8		90.74	-1.60	-1.33	90.74	-1.61	-1.37	HL
YYL7NG		92.26	-0.07	-0.06	92.38	0.03	0.02	XR
ZPQMMD		93.96	1.62	1.35	94.08	1.72	1.46	BJ



Plastics Interlaboratory Testing Program

Report #118

Analysis 786

2nd Qtr 2021

Total Luminous transmittance of film

Summary Statistics		
	<u>Sample D75</u>	<u>Sample D76</u>
Grand Means	92.338 Percent	92.352 Percent
Stnd Dev Btwn Labs	1.205 Percent	1.183 Percent
Statistics based on 27 of 28 reporting participants		

Sample D75: LDPE & Sample D76: LDPE

Comments on Assigned Data Flags for Test #786

THNC4Z (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample D75.

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

Report #118

Analysis 790

2nd Qtr 2021

Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S75			Sample S76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		3.56	-0.26	-1.01	3.58	-0.26	-0.97	TO
37NNBV		3.74	-0.08	-0.30	3.76	-0.09	-0.32	TO
6GHNWY		3.99	0.17	0.65	4.01	0.17	0.64	TO
6YW9PV		4.00	0.17	0.67	3.91	0.07	0.26	TO
87BTQY	*	4.57	0.75	2.89	4.59	0.75	2.79	WZ
8D8JDU		3.92	0.10	0.39	3.96	0.12	0.45	TO
8D9HCA		3.80	-0.03	-0.10	3.87	0.03	0.11	TO
8HYXUP		3.84	0.02	0.07	3.73	-0.11	-0.41	CE
9ANV9N		4.41	0.59	2.25	4.48	0.63	2.36	CE
9G2Y29		4.04	0.22	0.84	4.03	0.19	0.71	TM
9NRAFD		4.06	0.24	0.92	4.12	0.28	1.03	TO
ABXFFN		3.90	0.08	0.32	3.72	-0.13	-0.47	CE
BRXPXZ		3.77	-0.05	-0.19	3.75	-0.10	-0.35	TO
C224BL		4.39	0.57	2.18	4.43	0.59	2.18	TO
C4PV7N		3.60	-0.22	-0.86	3.55	-0.29	-1.08	TO
C6GQTX		3.76	-0.07	-0.25	3.77	-0.07	-0.27	TO
C6ZBZP		3.65	-0.17	-0.66	3.60	-0.25	-0.91	TO
CRDB3V		3.74	-0.08	-0.31	3.69	-0.15	-0.55	TO
EHZ3BK		3.61	-0.21	-0.81	3.73	-0.12	-0.43	CE
EPWZYM		4.02	0.19	0.75	4.19	0.35	1.30	XX
FALFXA	X	3.96	0.14	0.54	4.58	0.74	2.74	TO
HH4UUC	X	4.67	0.85	3.26	5.13	1.29	4.78	RR
HT89FA	*	4.09	0.27	1.04	4.33	0.49	1.83	TM
JGBFQJ		3.77	-0.05	-0.20	3.91	0.06	0.24	WZ
JWL4V8		3.82	0.00	0.01	3.97	0.13	0.49	CE
KPJ8XT		3.62	-0.20	-0.76	3.55	-0.29	-1.07	TO
KV6848		3.71	-0.12	-0.44	3.81	-0.03	-0.12	TY
NDA26P		3.69	-0.13	-0.50	3.71	-0.14	-0.51	CE
NH9C6V		3.66	-0.16	-0.61	3.70	-0.14	-0.53	TO
NXH46E		3.89	0.07	0.26	3.82	-0.02	-0.07	BA
NZPJCK	*	3.23	-0.60	-2.29	3.48	-0.37	-1.36	DY
P2V9BN		3.87	0.05	0.18	3.89	0.05	0.19	TM
PCDRVK		3.56	-0.26	-1.01	3.50	-0.34	-1.27	TM
Q2AAGM		3.76	-0.06	-0.24	3.80	-0.04	-0.15	XX
Q4WQTF		4.10	0.28	1.08	4.00	0.16	0.59	CE



Plastics Interlaboratory Testing Program

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Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S75			Sample S76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
QD8TEG		4.00	0.17	0.67	4.14	0.30	1.10	TM
RJQFNC		3.77	-0.05	-0.21	3.77	-0.07	-0.25	WZ
RLTKU7		4.08	0.26	0.98	4.06	0.22	0.82	TM
THNC4Z		3.58	-0.24	-0.91	3.67	-0.17	-0.65	TO
TZAQP6		3.74	-0.08	-0.32	3.59	-0.25	-0.92	TO
UXG8D7		3.75	-0.07	-0.26	3.66	-0.18	-0.67	TO
V7AUT9		3.69	-0.13	-0.51	3.72	-0.13	-0.47	TO
W82BHB		3.69	-0.13	-0.50	3.72	-0.12	-0.45	CE
XY6WVF		3.87	0.05	0.18	3.73	-0.11	-0.41	XX
YC38XT		3.27	-0.55	-2.10	3.40	-0.45	-1.65	DS
ZPQMMD		3.56	-0.26	-0.99	3.62	-0.22	-0.81	TO

Summary Statistics		
	Sample S75	Sample S76
Grand Means	3.821 ft.lbf/in	3.842 ft.lbf/in
Stnd Dev Btwn Labs	0.260 ft.lbf/in	0.269 ft.lbf/in
Statistics based on 44 of 46 reporting participants		

Sample S75: ABS & Sample S76: ABS

Comments on Assigned Data Flags for Test #790

- HH4UUC (X) - Data for both samples are high. Possible Systematic Error.
- FALFXA (X) - Data for sample S76 are high.

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

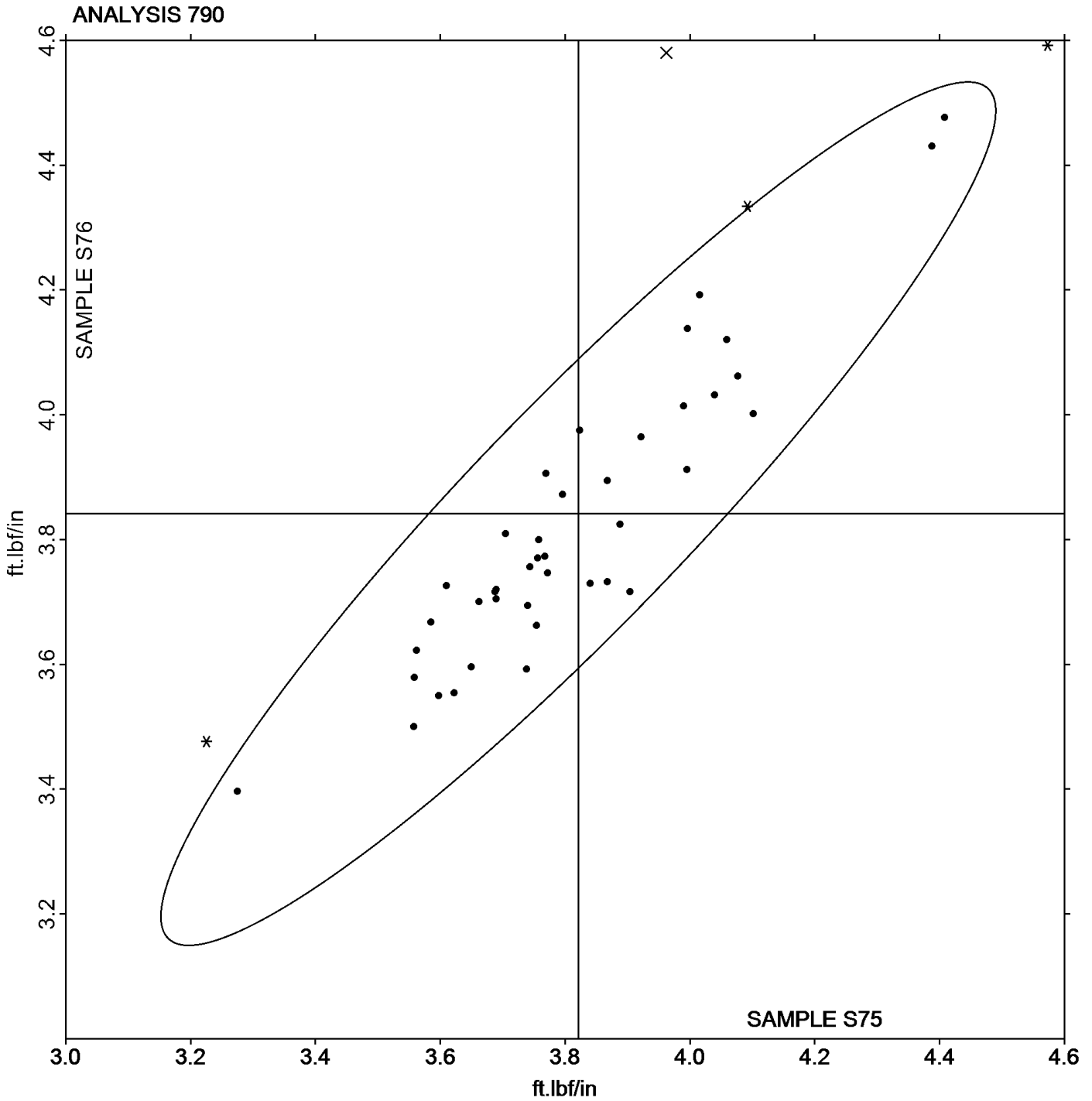
Analysis 790

Notched Izod Impact - ft.lbf/in

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Grand Mean Sample S75: 3.8210 ft.lbf/in Grand Mean Sample S76: 3.8415 ft.lbf/in





Plastics Interlaboratory Testing Program

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Notched Izod Impact - kJ/m²

WebCode	Data Flag	Sample Z75			Sample Z76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
23PXM6		45.95800	2.34361	0.80	46.05000	2.39823	0.84	TM
2VQDJN		47.45860	3.84421	1.31	44.99600	1.34423	0.47	XX
3UCJZU		46.64240	3.02801	1.03	45.85340	2.20163	0.77	TO
43ZEV3		46.09200	2.47761	0.84	46.03600	2.38423	0.84	CE
6KXCEA		46.06000	2.44561	0.83	47.28000	3.62823	1.27	CE
7MHKXA		46.70000	3.08561	1.05	46.52000	2.86823	1.01	TO
87TX7C		47.07040	3.45601	1.17	47.16260	3.51083	1.23	CE
8B28BY		44.18400	0.56961	0.19	44.01000	0.35823	0.13	TO
8D9HCA		43.40400	-0.21039	-0.07	42.90800	-0.74377	-0.26	TO
9VAFE6		44.35600	0.74161	0.25	43.52800	-0.12377	-0.04	TO
9WEEZX		43.58448	-0.02991	-0.01	43.41390	-0.23787	-0.08	TO
ABXFFN		42.42000	-1.19439	-0.41	41.62000	-2.03177	-0.71	CE
BN2XRN	*	46.73200	3.11761	1.06	43.38400	-0.26777	-0.09	WZ
C6GQTX		38.23560	-5.37879	-1.83	40.05860	-3.59317	-1.26	TO
DT6G68		45.06600	1.45161	0.49	45.87600	2.22423	0.78	CE
EP2CKX		45.93200	2.31761	0.79	45.64600	1.99423	0.70	WZ
F7YU89		43.34000	-0.27439	-0.09	43.16000	-0.49177	-0.17	WZ
H9E7WN		46.33200	2.71761	0.92	46.97600	3.32423	1.17	CE
JGBFQJ		41.61800	-1.99639	-0.68	40.57400	-3.07777	-1.08	WZ
KV6848		45.57000	1.95561	0.66	47.96600	4.31423	1.51	XX
KZDQ4L		43.51200	-0.10239	-0.03	43.53480	-0.11697	-0.04	TO
L9QYBE		40.73200	-2.88239	-0.98	41.59200	-2.05977	-0.72	TO
NTNA7T		43.26000	-0.35439	-0.12	44.36000	0.70823	0.25	WZ
P3TGLT		39.25800	-4.35639	-1.48	39.25600	-4.39577	-1.54	TO
Q2AAGM		41.54000	-2.07439	-0.71	41.62000	-2.03177	-0.71	XX
RJQFNC		43.83400	0.21961	0.07	43.81800	0.16623	0.06	WZ
VWLYR8		44.54800	0.93361	0.32	45.81000	2.15823	0.76	CE
WKPA9D		39.36600	-4.24839	-1.44	39.48600	-4.16577	-1.46	XX
WRQNWZ		37.75820	-5.85619	-1.99	38.03840	-5.61337	-1.97	CE
X8GQBH		37.78080	-5.83359	-1.98	37.95500	-5.69677	-2.00	CE
XY6WVF		40.30000	-3.31439	-1.13	41.12000	-2.53177	-0.89	XX
YL99E8		47.01600	3.40161	1.16	47.24800	3.59623	1.26	XX



Plastics Interlaboratory Testing Program

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2nd Qtr 2021

Notched Izod Impact - kJ/m²

Summary Statistics

	<u>Sample Z75</u>	<u>Sample Z76</u>
Grand Means	43.614390 kJ/m ²	43.651772 kJ/m ²
Stnd Dev Btwn Labs	2.942163 kJ/m ²	2.848467 kJ/m ²

Statistics based on 32 of 32 reporting participants

Sample Z75: ABS/PC & Sample Z76: 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

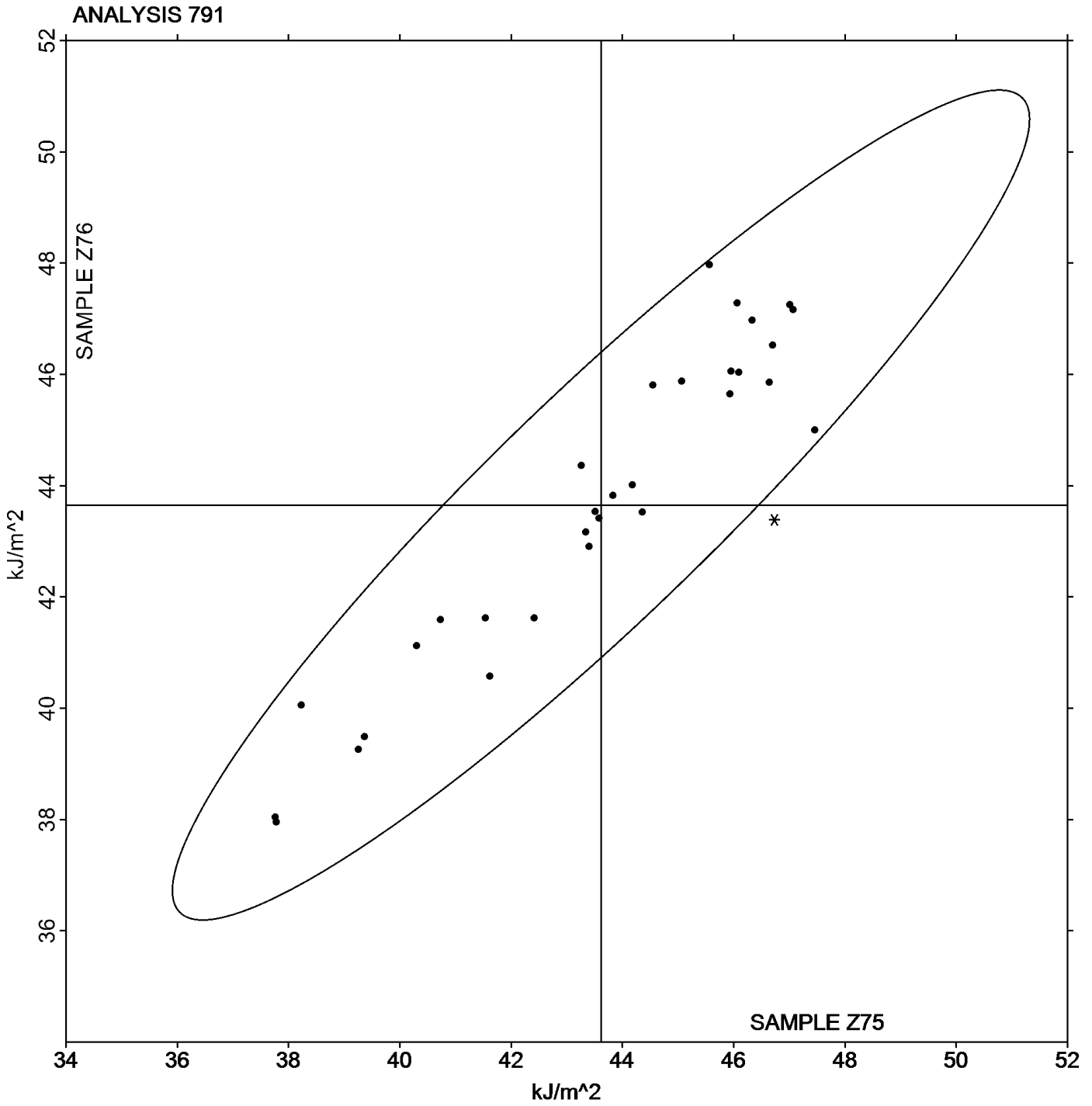
Analysis 791

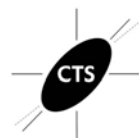
Notched Izod Impact - kJ/m^2

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Grand Mean Sample Z75: 43.614 kJ/m^2 Grand Mean Sample Z76: 43.652 kJ/m^2





Plastics Interlaboratory Testing Program

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2nd Qtr 2021

Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M75			Sample M76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2VQDJN		51.21	4.05	1.04	50.63	3.49	0.85	XX
36RFBK		45.16	-1.99	-0.51	45.17	-1.97	-0.48	WZ
43ZEV3		51.17	4.01	1.03	49.56	2.42	0.59	CE
6DHFQ4		49.02	1.87	0.48	50.45	3.31	0.81	WZ
6KXCEA		43.94	-3.21	-0.83	44.60	-2.54	-0.62	IN
7W3YUK		48.90	1.75	0.45	48.96	1.82	0.44	XX
87TX7C		49.22	2.07	0.53	49.96	2.82	0.69	IN
8B28BY		46.53	-0.63	-0.16	47.32	0.18	0.04	TO
9GJXBZ		48.98	1.83	0.47	48.88	1.74	0.43	CE
9JTXGR		46.62	-0.53	-0.14	47.44	0.30	0.07	CE
9LYFFN		43.03	-4.12	-1.06	42.92	-4.22	-1.03	TO
9NRAFD		54.56	7.40	1.91	54.01	6.87	1.68	TO
9VAFE6		44.35	-2.80	-0.72	45.70	-1.44	-0.35	TO
9WEEZX		46.85	-0.31	-0.08	46.91	-0.23	-0.06	TO
9Y9YCX		48.56	1.41	0.36	50.56	3.42	0.84	TO
ABXFFN		50.36	3.21	0.83	51.42	4.28	1.05	CE
C4PV7N		44.96	-2.19	-0.56	44.61	-2.53	-0.62	XX
C6GQTX		42.40	-4.76	-1.22	42.36	-4.78	-1.17	TO
CVVPB3		47.44	0.29	0.07	47.40	0.26	0.06	CE
DT6G68		50.85	3.70	0.95	49.30	2.16	0.53	CE
EP2CKX		45.98	-1.17	-0.30	45.90	-1.24	-0.30	WZ
EPWZYM		48.06	0.91	0.23	47.69	0.55	0.13	XX
F7YU89		43.41	-3.75	-0.96	42.91	-4.23	-1.03	WZ
GGGV39		53.72	6.57	1.69	54.28	7.14	1.75	WZ
JGBFQJ		44.03	-3.13	-0.81	44.09	-3.05	-0.75	WZ
KV6848		49.17	2.01	0.52	49.52	2.38	0.58	TY
KZDQ4L		48.30	1.15	0.30	47.33	0.19	0.05	TO
L9QYBE		44.73	-2.43	-0.62	44.25	-2.89	-0.71	TO
NDA26P		47.91	0.76	0.20	46.55	-0.59	-0.14	WZ
NTNA7T		45.39	-1.76	-0.45	45.60	-1.54	-0.38	WZ
P3TGLT		41.77	-5.39	-1.39	41.56	-5.58	-1.36	TO
Q2AAGM		44.58	-2.57	-0.66	44.58	-2.56	-0.63	XX
QD8TEG	*	41.04	-6.12	-1.57	38.84	-8.30	-2.03	TM
RJQFNC		44.90	-2.25	-0.58	44.72	-2.42	-0.59	WZ
RLTKU7	*	59.28	12.13	3.12	59.90	12.76	3.12	XX



Plastics Interlaboratory Testing Program

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Notched Charpy Impact - kJ/m²

WebCode	Data Flag	Sample M75			Sample M76			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
TBQH8M		48.08	0.93	0.24	47.65	0.51	0.12	CE
TNG8AE		48.73	1.57	0.41	50.22	3.08	0.75	WZ
V7AUT9		46.68	-0.47	-0.12	46.85	-0.29	-0.07	TO
VWLYR8		46.17	-0.98	-0.25	44.59	-2.55	-0.62	CE
W82BHB		43.14	-4.01	-1.03	42.80	-4.34	-1.06	CE
WRQNWZ		42.37	-4.78	-1.23	42.27	-4.87	-1.19	CE
WTJDGG		53.13	5.98	1.54	54.41	7.27	1.78	CE
X8GQBH		41.05	-6.11	-1.57	40.85	-6.29	-1.54	CE
XY6WVF		43.52	-3.63	-0.94	44.24	-2.90	-0.71	XX
YGX2T9		52.68	5.52	1.42	51.56	4.42	1.08	TO

Summary Statistics

	Sample M75	Sample M76
Grand Means	47.154 kJ/m ²	47.140 kJ/m ²
Std Dev Btwn Labs	3.886 kJ/m ²	4.091 kJ/m ²

Statistics based on 45 of 45 reporting participants

Sample M75: ABS/PC & Sample M76: ABS/PC

Key to Instrument Codes Reported by Participants

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



Plastics Interlaboratory Testing Program

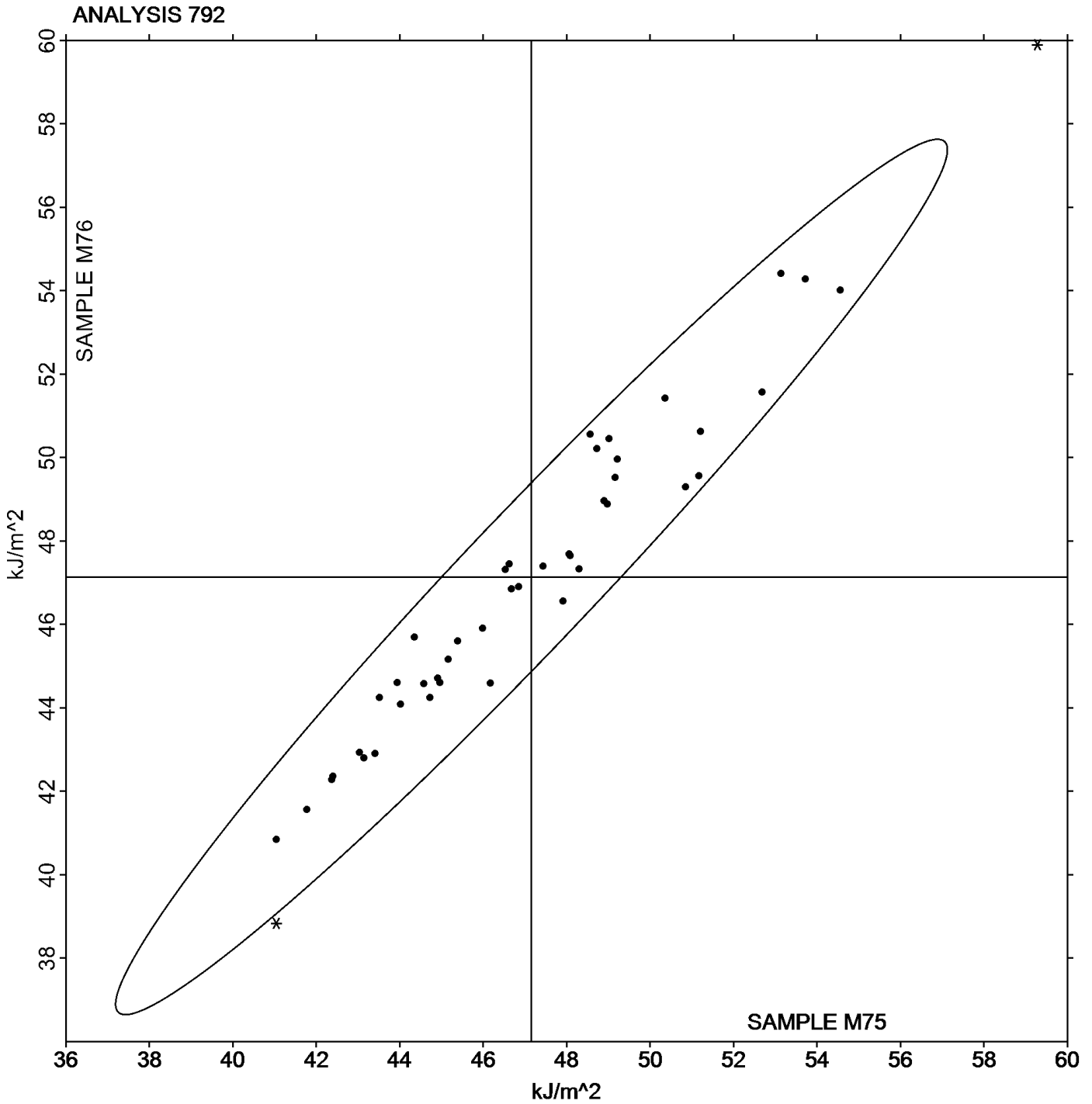
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2nd Qtr 2021

Notched Charpy Impact - kJ/m^2

Grand Mean Sample M75: 47.154 kJ/m^2 Grand Mean Sample M76: 47.140 kJ/m^2



-End of Report-