

Containerboard Interlaboratory Testing Program

Participant Summary Report #673 - October 2025

[Introduction to the Containerboard Program](#)

[Explanation of Tables and Definitions of Terms](#)

Analysis	Sample	Analysis Name
<u>201</u>	<u>BO18</u>	<u>Top to Bottom Box Compression Strength, Corrugated Boxes</u>
<u>202</u>	<u>EC17</u>	<u>Edgewise Compressive Strength, by T811, Corrugated Board</u>
<u>203</u>	<u>EC17</u>	<u>Edgewise Compressive Strength by T839, Corrugated Board</u>
<u>205</u>	<u>42L4</u>	<u>Bursting Strength (Mullen), 42 lb Linerboard</u>
<u>207</u>	<u>31K1</u>	<u>Bursting Strength (Mullen), 31 lb Linerboard</u>
<u>215</u>	<u>42L4</u>	<u>Ring Crush, 42 lb Linerboard</u>
<u>217</u>	<u>31K1</u>	<u>Ring Crush, 31 lb Linerboard</u>
<u>223</u>	<u>42L4</u>	<u>STFI, 42 lb Linerboard</u>
<u>225</u>	<u>31K1</u>	<u>STFI, 31 lb Linerboard</u>
<u>228</u>	<u>42L4</u>	<u>Roughness - Stylus Method, 42 lb Linerboard</u>
<u>229</u>	<u>42L4</u>	<u>Roughness - Sheffield Method, 42 lb Linerboard</u>
<u>231</u>	<u>42L</u>	<u>Internal Bond, 42 lb Linerboard</u>
<u>234</u>	<u>42L</u>	<u>COF Inclined Plane (Slide Angle), 42 lb Linerboard</u>
<u>237</u>	<u>42L</u>	<u>Air Resistance, 42 lb Linerboard</u>
<u>240</u>	<u>CM13</u>	<u>Flat Crush Strength (CMT), 26 lb Corrugating Medium</u>
<u>250</u>	<u>CM13</u>	<u>Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium</u>
<u>255</u>	<u>CM13</u>	<u>Ring Crush (RCT), 26 lb Corrugating Medium</u>
<u>261</u>	<u>CM13</u>	<u>STFI, 26 lb Corrugating Medium</u>

Collaborative Testing Services, Inc.
CONTAINERBOARD INTERLABORATORY TESTING PROGRAM

INTRODUCTION

The Interlaboratory Testing Program for Containerboard is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Containerboard Group of the American Forest & Paper Association. The tests are conducted on a monthly basis.

For these tests samples of linerboard and corrugating medium, that each have been separately randomized from narrow rolls, are distributed for testing weekly. One weight of medium (26 lb.) is used for Concora Flat Crush Strength, Corrugated Fluted Crush Strength, Ring Crush Strength, and STFI Compression. Two weights of linerboard are tested each month for Mullen Burst, Ring Crush, and STFI Compression: 42 lb. - every month; 31 lb. and 52 lb. - alternate months. The participants return their test results for analysis and receive a monthly report.

Please refer to the section, "EXPLANATION OF TABLES", for definitions of terms and guidelines to interpreting the results.

USE OF AVERAGE MEAN AS A COLLABORATIVE REFERENCE VALUE

The samples of linerboard and corrugating medium, which have been randomized and placed in sealed packages for distribution in this program, may be used as collaborative reference materials. The values most representative of each material are the Cumulative Grand Means in the latest reports, given at the bottom right of each table. Comparisons can only be made within one lot of material; therefore check your measurements against the Cumulative Grand Means with the same lot code as on the packages being tested.

Material	Lot Code	Dates in Use
26# Corrugating Medium	CM13	September 2023 - Current
	CM12	June 2022 - August 2023
31# Linerboard	31K1	August 2024 - Current
	35E3	June 2022 - June 2024
42# Linerboard	42L4	August 2025 - Current
	42L3	March 2025 - July 2025
52# Linerboard	52M1	July 2025 - Current
	52J2	September 2024 - May 2025

ABOUT CTS

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

For further information, contact:
Collaborative Testing Services, Inc
21331 Gentry Drive
Sterling, VA 20166 USA
Voice: 571-434-1925
Fax: 571-434-1937
containerboard@cts-interlab.com

EXPLANATION OF TABLES

Each analysis is divided into three time spans. On the left side of the table are the individual laboratory results for each week of the month; in the center are each lab's statistical data for the month; and on the right are each lab's cumulative data for up to 16 weeks. At the bottom of the table are the consensus statistics for all the participants for each of the three time spans.

Definitions of Terms Used

Weekly Results

Laboratory Data

- WebCode - A six character laboratory identifier used to maintain information on a confidential basis. The WebCode is unique for each cycle and will change for each report. Your WebCode can be found in your Individual Report (Current Month Performance Report) and your datasheet.
- Weekly Means - The average of the test results obtained by the participant for each week that data were reported.

Consensus Data

- Wk Mean - For each week, the average of the Means for all the participants, excluding those laboratories flagged with an 'X'.
- Avg SD - For each week, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'. The Avg SD is an indication of the variation of measurements within an average laboratory.
- SD btwn Labs - For each week, the standard deviation of the laboratory Means about the Wk Mean, excluding those laboratories flagged with an 'X'. The SD LABS is an indication of the precision of measurement between the laboratories.
- Labs Incl - The number of laboratory Means included in the Wk Mean for that week.
- Labs Excl - The number of laboratory Means reported but excluded from the Wk Mean for that week because of outlying results ('X' following Mean).
- Labs not rcvd - The number of laboratories failing to report for that week.

Monthly Results

Laboratory Data

- Mean - For each laboratory, the average of all the weekly Means reported for this month.
- CPV - **Comparative Performance Value**, an indication of how well a laboratory's Mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean). The closer a laboratory's CPV is to zero, the more consistent its results are with the other participants' data.
- SD - For each laboratory, the average of the weekly within-lab standard deviations (SD's) for all reported Weekly Means this month.
- SD Wk - The standard deviation among the laboratory's weekly Means, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.

Consensus Data

- Month Mean - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for this month.
- Avg SD - For the current month, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'.
- SD btwn Labs - For the current month, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.
- SD btwn Group - For the current month, the standard deviation of the laboratory Means within the group about the Month Mean, excluding those laboratories flagged with an 'X'.
- SD btwn Wks - For the current month, the average of the laboratory between week standard deviations (SD Wks) for all the participants, excluding those laboratories flagged with an 'X'.

Cumulative Results

Laboratory Data

Mean	-	For each lab, the average of all the monthly Means reported for the weeks shown.
CPV	-	Comparative Performance Value , an indication of how well a laboratory's cumulative mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean).
SDr	-	For each laboratory, the average of the weekly within-lab standard deviations (SD's) for the weeks shown.
SD Wk	-	The standard deviation among the laboratory's weekly Means for the weeks shown, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.
Wks	-	The number of weeks included in the cumulative period.
Inst	-	The two letter instrument code. Codes are summarized at the bottom of the last analysis page.

Consensus Data

Grand Mean	-	The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for the number of weeks included in the cumulative period.
Avg SD	-	For the cumulative period, the average of the within-laboratory standard deviations (SD's) for all the participants, excluding those laboratories flagged with an 'X'.
SD btwn Labs	-	For the cumulative period, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.
SD btwn Wks	-	For the cumulative period, the average of the laboratory between week standard deviations for all the participants, excluding those laboratories flagged with an 'X'.
Labs Incl	-	The number of laboratory Means included in the Grand Mean.

Any laboratory that receives a 'flag' following a mean or standard deviation should refer to the chart below for an explanation of the data flag symbol:

<u>Flag</u>	<u>Explanation</u>
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Data Flags "X" and "*" indicate a laboratory's performance on an average value differed from the consensus.

Data Flags "H" and "L" indicate a laboratory's performance on a standard deviation differed from the consensus.

Flags assigned to Weekly Means, Monthly Mean and Cumulative Mean:

- | | |
|---|--|
| X | Excluded from the weekly means, monthly means and/or the cumulative mean. Immediate review of data and/or testing procedure is recommended. |
| * | Included in the weekly means, monthly means and/or the cumulative mean; however, lab should review testing procedure and monitor future results. |

Flags assigned to Weekly Means:

- | | |
|---|--|
| H | Indicates high within-laboratory standard deviation. The laboratory SD for each week is not shown, but laboratory average SD and consensus average SD values are shown. |
| L | Indicates low within-laboratory standard deviation. The laboratory SD for each week is not shown, but laboratory monthly average SD and consensus average SD values are shown. |

Flags assigned to Monthly SD Wks and Cumulative SD Wks:

- | | |
|---|--|
| H | Indicates high variability between weekly means (high week-to-week variation). |
| L | Indicates low variability between weekly means (low week-to-week variation). |



Containerboard Interlaboratory Testing Program

Analysis 201

Report #673

October 2025

Top to Bottom Box Compression Strength, Corrugated Boxes - BO18

TAPPI Official Test Method T804

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
2JWJYM	597.2	1.07	15.08	609.2	1.64	15.29	3	ER
2UE4JJ	563.9	-0.19	54.30	554.5	-0.19	28.11	4	LS
3A7KLM	602.4	1.26	41.22	604.5	1.49	2.78 L	4	EX
4B2CJE	550.4	-0.70	39.09	558.5	-0.06	26.68	4	LG
8Q2KR4	606.4	1.41	7.86	570.9	0.36	30.22	4	EX
8YCMD6	581.0	0.46	11.38	556.5	-0.12	22.31	4	ER
BJMXEC	540.6	-1.07	51.82	506.7	-1.79	31.73	4	TB
BW9AT8	524.4	-1.68	23.86	544.0	-0.54	25.23	4	EX
BX4TU9	573.8	0.18	40.60	555.5	-0.16	12.90	4	LG
DDBTGA	587.7	0.71	18.56	547.7	-0.42	34.84	3	LS
E3RMBX	557.8	-0.42	43.08	533.0	-0.91	22.00	4	ER
L7JBG6	580.2	0.43	37.34	560.7	0.02	13.14	4	LG
LDL9GU	594.4	0.96	23.14	597.7	1.26	7.55	4	LO
MBEDBW	597.3	1.07	15.71	589.9	1.00	11.96	4	LM
N7GBLM	545.4	-0.89	37.71	572.5	0.41	51.72	4	LM
RLDNHT	442.9	-4.76 X	19.61	484.2	-2.55 *	54.04 H	4	ET
TVVT3X	599.6	1.16	14.47	601.7	1.39	5.10	4	LG
UADN9L	535.6	-1.26	23.32	539.6	-0.69	12.87	4	ER
UQ3W7J	545.4	-0.89	43.79	548.4	-0.40	10.64	4	EX
WFTDGK	563.0	-0.22	44.80	577.0	0.56	17.46	4	EX
XFP7UJ	516.4	-1.99 *	14.76	533.9	-0.88	38.87	4	ER
Y8E49H	557.6	-0.43	23.80	552.3	-0.26	26.05	4	ES
Z9MHBH	571.5	0.09	35.35	570.6	0.35	13.93	4	EX
ZYCGPG	593.8	0.94	23.74	575.4	0.51	24.01	4	EX

Consensus (All Labs) Results

Month Mean	568.95	Grand Mean	560.19
Avg SD	32.69	Avg SD Months	25.98
SD btwn Labs	26.47	SD btwn Labs	29.82
Labs Incl	23	Labs Incl	24

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	571.89	24.78	2.95	8
Clip sealing	565.24	27.82	3.70	14
Staple sealing	597.18	0.00	28.23	1



Containerboard Interlaboratory Testing Program

Analysis 201

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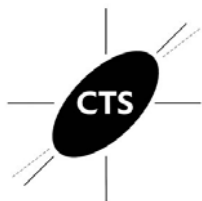
October 2025

Top to Bottom Box Compression Strength, Corrugated Boxes - BO18

TAPPI Official Test Method T804

Key to Instrument Codes Reported by Participants

ER	Emerson 6200 Series	ES	Emerson 8510
ET	Emerson 7200	EX	Emerson Apparatus (Model not specified)
LG	TLS / L.A.B. Validator Series	LM	Lansmont 122-15k
LO	Lansmont 152-30k	LS	Lansmont Squeezer
TB	TMI Monitor/Compression Tester, Model 17-70		



Containerboard Interlaboratory Testing Program
 Analysis 202
Edgewise Compressive Strength, by T811, Corrugated Board - EC17
 TAPPI Official Test Method T811

Report #673
October 2025

WebCode	Monthly Results				Cumulative Results				Inst
	Mean	CPV	SD		Mean	CPV	SD Months	Months	
2UE4JJ	40.2	-0.06	2.95		39.9	-0.21	0.75	4	LD
4B2CJE	43.5	0.82	1.51		44.7	0.95	0.83	4	EX
BW9AT8	45.4	1.33	1.75		45.2	1.07	0.97	4	LC
G2PCRY	33.9	-1.76	3.88		33.9	-1.66	0.00	1	TH
H7VGTX	39.4	-0.28	1.35		37.2	-0.85	1.67	4	TS
MPBJEY	42.5	0.55	0.88	L	40.7	-0.02	1.58	3	TS
T89TYQ	41.8	0.37	1.18		44.6	0.93	1.91	4	XX
UADN9L	35.4	-1.35	4.40	H	36.6	-0.99	1.33	4	EN
Z9MHBH	41.9	0.38	2.10		43.9	0.77	2.30	4	LC
Consensus (All Labs) Results									
Month Mean			40.45		Grand Mean			40.74	
Avg SD			2.51		Avg SD Months			1.51	
SD btwn Labs			3.73		SD btwn Labs			4.13	
Labs Incl			9		Labs Incl			9	

Key to Instrument Codes Reported by Participants

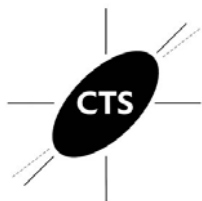
EN	Emerson 2200	EX	Emerson (model not specified)
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
TH	TMI Monitor/Compression Tester, Model 17-76	TS	TMI Digital Crush Tester, Model 17-56
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
 Analysis 203
Edgewise Compressive Strength by T839, Corrugated Board - EC17
 TAPPI Official Test Method T839

Report #673
October 2025

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
2BHXQJ	49.9	1.11	1.22	48.1	0.93	1.71	4	TE
2JWJYM	50.0	1.12	1.65	51.0	1.81	1.19	3	LD
2UE4JJ	44.0	-0.45	0.95	44.3	-0.25	1.26	4	LD
346WEF	51.5	1.53	1.29	51.9	2.10 *	0.93	4	TG
3A7KLM	47.3	0.43	0.84	47.2	0.63	1.38	4	CT
4B2CJE	45.7	0.00	1.21	46.1	0.30	0.95	4	LY
8B3H9B	31.5	-3.75 X	3.11 H	33.5	-3.60 X	1.73	4	XX
8Q2KR4	38.8	-1.82	1.60	40.2	-1.52	0.96	4	LD
8TKQYD	52.6	1.83	2.34	47.9	0.87	3.28	4	MK
8YCMD6	38.5	-1.91	2.02	40.7	-1.39	1.88	4	LD
BJMXEC	49.5	1.01	0.57 L	48.7	1.11	0.61	4	LD
BW9AT8	47.3	0.41	0.71 L	49.7	1.43	2.30	4	LC
DDBTGA	44.6	-0.29	0.89	43.2	-0.59	1.19	3	EM
E3RMBX	46.2	0.13	2.07	45.9	0.23	0.57	4	EM
EUUV34	46.0	0.07	2.13	47.9	0.85	1.57	4	LD
EX9GLA	42.5	-0.85	2.55	44.3	-0.25	1.33	4	EM
G2PCRY	43.0	-0.73	2.62 H	43.0	-0.67	0.00	1	TH
GZPMX3	46.6	0.22	2.30	43.9	-0.38	2.42	4	EM
H7VGTX	43.9	-0.49	1.55	42.2	-0.92	1.39	4	TS
HJZWC9	47.7	0.53	1.04	47.0	0.60	1.72	4	LC
HUMN9Y	39.5	-1.64	1.47	40.1	-1.56	2.59	4	TD
JY8FM6	46.8	0.29	1.02	45.6	0.15	1.47	4	BU
L7JBG6	45.1	-0.17	1.35	46.0	0.27	0.78	4	EM
LDL9GU	41.1	-1.22	1.93	41.6	-1.08	0.55	4	LD
MBEDBW	43.6	-0.57	1.29	44.6	-0.16	2.10	4	EM
MPBJEY	41.3	-1.15	0.94	40.8	-1.35	0.59	3	TD
N7GBLM	46.0	0.08	2.06	46.4	0.41	1.61	4	TG
PJY7VR	47.2	0.41	1.80	39.6	-1.72	6.42 H	4	IX
PMVYHU	49.0	0.86	1.09	47.5	0.75	2.42	4	EM
RLDNHT	45.7	0.01	1.72	45.0	-0.04	1.51	4	TD
T89TYQ	43.5	-0.58	1.37	45.3	0.05	1.92	4	XX
THUW7Q	40.7	-1.32	0.98	39.4	-1.79	1.30	4	BU
TVVT3X	49.9	1.12	0.70 L	45.9	0.23	3.19	4	EM
UADN9L	40.9	-1.28	1.43	41.4	-1.16	0.61	4	EN
WV29PL	50.5	1.26	1.53	47.7	0.81	3.10	4	EM
WY2KLL	41.3	-1.16	1.79	42.6	-0.78	1.29	3	TU
XFP7UJ	50.1	1.17	1.78	46.5	0.42	2.95	4	LD
Y8E49H	50.6	1.31	2.89 H	47.6	0.78	2.07	4	LD
Z9MHBH	48.4	0.70	1.37	47.9	0.86	0.68	4	LC



Containerboard Interlaboratory Testing Program
Analysis 203
Edgewise Compressive Strength by T839, Corrugated Board - EC17
TAPPI Official Test Method T839

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Consensus (All Labs) Results			
Month Mean	45.70	Grand Mean	45.12
Avg SD	1.63	Avg SD Months	2.04
SD btwn Labs	3.78	SD btwn Labs	3.22
Labs Incl	38	Labs Incl	38

Key to Instrument Codes Reported by Participants

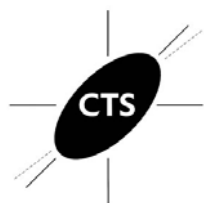
BU	Buchel Digital Crush Tester	CT	Con-Ten
EM	Emerson 1200 Series	EN	Emerson 2200
IX	Instron (model not specified)	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LY	L&W 830
MK	Mark-10 ESM303	TD	TMI Digital Crush Tester, Model 17-09
TE	TMI Monitor/Compression Tester, Model 17-60	TG	TMI Digital Crush Tester, 17-76
TH	TMI Monitor/Compression Tester, Model 17-76	TS	TMI Digital Crush Tester, Model 17-56
TU	TMI Universal Crush Tester (TMI K440)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42L4
 TAPPI Official Test Method T807

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
27TAKD_AL	117.5	114.5	118.4	118.3	117.2	0.99	8.4	1.8	117.1	0.93	7.7	3.1	12	AL
29YRJ9_AL	107.9	107.4	108.5	106.5	107.6	-1.57	7.8	0.8	107.8	-1.69	6.5	1.4	12	XX
2BHXQJ	116.7	116.7	113.8	114.0	115.3	0.49	8.2	1.6	116.6	0.79	7.0	3.7	12	LC
2JWJYM	111.3	113.6	106.8	114.8	111.6	-0.49	6.5	3.5	112.8	-0.27	6.6	3.5	8	LA
2JWJYM_AL	112.9	115.9	116.8	117.7	115.8	0.63	10.7	2.1	113.2	-0.16	9.0	3.9	8	AK
2UE4JJ	114.1	114.8	113.7	112.3	113.7	0.07	8.1	1.1	113.7	-0.03	7.9	3.1	12	LA
3A7KLM	116.5	118.0	117.0	116.0	116.9	0.91	8.4	0.9	117.3	0.98	8.2	1.8	12	XX
6QNAYE	123.0	123.9 *	118.8	119.4	121.3	2.07 *	8.6	2.5	121.4	2.13 *	7.1	2.4	12	LA
73VEN8	105.6	112.0	107.1	110.3	108.8	-1.25	6.7	2.9	108.6	-1.47	7.5	2.6	12	LC
7U47ZA	111.8 L	112.6 L	112.2 L	112.2 L	112.2	-0.33	2.0	0.3 L	114.6	0.23	1.5	2.9	12	LA
8Q2KR4	108.0	110.4	113.2	106.8	109.6	-1.02	6.8	2.8	109.8	-1.14	7.8	2.8	12	AH
8YCMD6	113.8	102.6 *	110.7	107.7	108.7	-1.26	7.4	4.8	109.2	-1.31	6.8	2.8	12	LA
APZ8J2_AL	118.4	No DATA	118.0	No DATA	118.2	1.26	5.5	0.2	117.1	0.94	8.5	1.6	8	AL
AUU2G3	117.7	117.3	121.9	108.4	116.3	0.76	8.1	5.7 H	118.4	1.29	7.7	4.1	12	LJ
BG4R83_AL	115.6	114.4	No DATA	No DATA	115.0	0.41	9.5	0.8	114.0	0.04	8.6	1.2	6	AL
BJMXEC	110.8	110.4	104.4	110.0	108.9	-1.21	7.3	3.0	108.0	-1.65	7.2	2.4	12	XX
BU6EA4_AL	120.8	119.4	120.0	118.6	119.7	1.65	9.2	0.9	118.8	1.40	8.7	1.4	8	AL
BW8CHC	116.3	115.1	114.0	114.2	114.9	0.38	5.5	1.0	115.2	0.39	5.1	1.0	12	AH
C2ZYN6	105.4	113.0	107.7	107.9	108.5	-1.32	7.5	3.2	107.6	-1.75	7.5	3.4	12	XX
E4ED6A	108.7	106.9	105.0	109.7	107.6	-1.56	8.8	2.1	114.2	0.11	7.8	5.5	12	XX
ER3X93_AL	110.9	116.4	115.3	118.4	115.3	0.48	7.7	3.2	116.4	0.74	9.3	2.7	12	AL
FZEA72_AL	119.9	116.2	113.2	116.5	116.4	0.79	8.6	2.7	115.8	0.56	6.9	2.2	12	XX
G2PCRY	122.4	120.7	115.4	118.6	119.3	1.54	7.0	3.0	119.3	1.54	7.0	3.0	4	TX
GDMFWT_AI	106.0	112.8 L	111.3 L	No DATA	110.1	-0.90	4.5	3.6	110.3	-0.98	4.9	2.3	9	AL
GWA2EV	112.7	112.2	117.5	117.9	115.1	0.43	9.9	3.0	115.0	0.35	8.6	2.2	12	LA
GZT8L6	114.2	114.9	114.9	115.3	114.8	0.36	4.7	0.5	114.7	0.24	4.7	1.2	12	TP
HB7UAW_AL	108.7	112.6	110.3	110.8	110.6	-0.76	8.5	1.6	112.1	-0.49	8.7	3.1	12	AL
HKW2H3	110.8 H	110.8	113.3	110.8	111.4	-0.54	10.5	1.2	113.3	-0.13	8.8	3.4	12	LB
J86UZR	No DATA	108.8	105.8	No DATA	107.3	-1.64	6.9	2.1	107.7	-1.72	7.0	2.6	8	AX
J86UZR_AL	No DATA	111.4	108.2	No DATA	109.8	-0.97	7.4	2.3	113.2	-0.18	9.6	3.7	8	AL
JXCXL4	150.8 X	143.2 X	139.3 XH	137.4 XH	142.7	7.75 X	13.5	5.9 H	143.9	8.49 X	11.8	4.2	12	XX
KP2VZ3	109.5	112.5	116.4	110.0	112.1	-0.36	9.1	3.2	112.7	-0.31	8.9	2.6	12	LC
KP2VZ3_AL	112.5	112.0	119.8	114.6	114.7	0.33	8.5	3.6	114.4	0.17	9.1	2.9	12	AL
KUR6A2_AL	114.4	113.2	116.9	116.3	115.2	0.46	6.6	1.7	113.4	-0.11	8.4	2.6	12	AL
L4Z6AU	No DATA	119.0	No DATA	No DATA	119.0	1.47	8.6	0.0	120.9	2.01 *	7.5	2.5	7	AH



Containerboard Interlaboratory Testing Program
Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42L4
 TAPPI Official Test Method T807

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
L9A9FW_AL	114.6	110.7	113.9	112.5	112.9	-0.15	10.1	1.7	113.0	-0.23	8.8	2.9	12	AL
LTD99T	116.6	121.2	114.4	115.3	116.9	0.91	7.6	3.0	118.5	1.33	8.2	3.7	12	LA
LTD99T_AL	109.8	114.6	114.6	118.9	114.5	0.27	5.1	3.7	114.1	0.07	5.9	2.2	12	AL
MLB9HY	107.1	108.7	103.4 *	110.6	107.5	-1.59	7.1	3.1	108.1	-1.61	7.7	2.8	12	LA
NMLJZN_AL	112.1	113.8	114.9	107.5	112.1	-0.37	7.0	3.3	112.8	-0.27	7.8	2.9	12	AL
PEP3NP_AL	124.0 *	119.0	119.5	119.0	120.4	1.84	5.8	2.4	117.3	0.97	8.5	4.8	12	AL
RRL2PR	140.2 XH	125.7 X	130.4 X	121.1	129.4	4.22 X	10.2	8.2 H	130.8	4.78 X	10.1	7.7 H	12	AX
RVN2PN	120.1	112.3	117.7	116.9	116.7	0.87	9.2	3.3	116.9	0.87	8.4	3.6	12	TB
VNU2YL	106.3	105.0 *	105.0	113.9	107.6	-1.57	6.0	4.3	108.6	-1.47	7.0	2.5	12	LC
VYRV8P	110.4 L	109.9	109.2	108.8	109.6	-1.03	3.6	0.7	110.0	-1.06	3.7	0.9	12	XX
WFRHRM	115.1	117.5	117.8	110.0	115.1	0.43	8.5	3.6	116.5	0.75	9.0	2.8	12	LC
WQTQQT_AI	113.6	113.3	114.3	115.2	114.1	0.17	6.2	0.8	114.5	0.18	9.3	2.3	8	AL
WV29PL_AL	109.5	110.8	112.9	110.1	110.8	-0.70	6.1	1.5	109.9	-1.11	6.5	2.2	12	AL
XFP7UJ	113.7	115.1	112.9	117.9	114.9	0.38	7.2	2.2	114.2	0.11	7.4	2.1	12	AH
XHTQRQ	125.4 *	130.3 X	121.2	132.5 XH	127.4	3.69 X	11.1	5.1	131.8	5.06 X	10.2	5.5	12	AX
Y8E49H	115.0	113.3	114.9	109.9	113.3	-0.05	8.4	2.4	113.3	-0.15	8.9	2.0	12	LA
Z9MHBH	112.4	111.8	111.0	111.4	111.7	-0.48	7.8	0.6	113.0	-0.22	8.0	1.8	12	AH
ZFNTLG_AL	118.5	113.0	120.1	114.0	116.4	0.78	7.2	3.4	115.2	0.40	7.4	3.3	12	AL

Consensus (All Labs) Results														
Wk Mean	113.73	113.52	113.55	113.49	Month Mean	113.46		Grand Mean	113.81					
Avg SDr	8.11	7.35	7.76	7.40	Avg SD	7.64		Avg SD	7.69					
SD btwn Labs	4.97	4.08	4.75	4.04	SD btwn Labs	3.77		SD btwn Labs	3.55					
Labs Incl	48	49	49	45	SD btwn Wks	2.62		SD btwn Wks	2.84					
Labs Excl	2	3	2	2	Labs Incl	50		Labs Incl	50					
Labs not Rcvd	3	1	2	6										

Key to Instrument Codes Reported by Participants

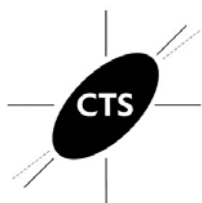
AH	Perkins Model AH	AK	L & W Autoline 300
AL	L & W Autoline 400	AX	Perkins Mullen Tester (model not specified)
LA	L&W Bursting Strength Tester	LB	L&W Burst-O-Matic
LC	L&W Autoline (205 Enrollment)	LJ	L&W Bursting Strength Tester J-Type
TB	TMI Monitor/Burst 1000	TP	Technidyne PROFILE/Plus
TX	TMI Monitor/Burst (model not specified)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
Analysis 207
Bursting Strength (Mullen), 31 lb Linerboard - 31K1
 TAPPI Official Test Method T807

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
27TAKD_AL	79.3	79.3	80.2	78.4	79.3	1.44	5.8	0.7	78.2	1.08	6.6	1.8	12	XX
29YRJ9_AL	70.4	71.9	72.9	71.1	71.6	-1.29	5.4	1.1	71.3	-1.51	5.2	1.4	12	XX
2BHXQJ	76.2	75.9	74.4	75.9	75.6	0.14	7.4	0.8	73.4	-0.74	6.4	2.5	8	LC
2JWJYM	76.8	73.2 H	74.6	75.5	75.0	-0.06	6.9	1.5	75.4	0.02	6.7	2.5	12	LC
2JWJYM_AL	75.6	72.0	76.1	72.3	74.0	-0.43	6.6	2.2	75.3	0.00	5.6	1.8	12	AK
2UE4JJ	77.2	75.9	74.7	76.6	76.1	0.32	5.8	1.1	75.9	0.21	5.7	2.9	12	LA
3A7KLM	80.0	75.5	79.0	75.5	77.5	0.81	6.5	2.3	78.5	1.18	6.4	2.5	12	XX
6QNAYE	77.0	76.9	76.3	74.9	76.3	0.38	4.6	1.0	78.0	1.00	4.6	2.0	12	LA
73VEN8	75.2	71.4	72.9	71.3	72.7	-0.88	4.3	1.8	71.9	-1.29	5.1	1.3	12	LA
7U47ZA	76.3 L	75.9 L	75.7 L	75.7 L	75.9	0.25	1.2	0.3 L	76.2	0.34	1.2	0.4 L	12	LA
8Q2KR4	72.8	69.6	74.4	68.0 *	71.2	-1.41	5.5	2.9	71.6	-1.40	5.8	2.2	12	AH
8YCMD6	72.7	71.3	70.2	71.9	71.5	-1.30	5.4	1.1	72.6	-1.04	5.3	1.8	12	LA
APZ8J2_AL	78.4 L	No DATA	76.6	No DATA	77.5	0.81	3.5	1.2	77.3	0.75	4.5	2.1	6	AL
AUU2G3	79.0	73.5	77.9	74.4	76.2	0.35	6.3	2.6	76.5	0.43	6.2	2.0	8	LJ
BJMXEC	70.9	72.6	72.6	74.2	72.6	-0.93	6.5	1.3	71.8	-1.31	5.8	1.9	12	XX
BU6EA4_AL	78.2	77.0	77.8	72.2	76.3	0.39	7.0	2.8	76.2	0.32	6.4	3.1	8	AL
BW8CHC	75.0	76.9	77.5	77.3	76.7	0.52	4.7	1.1	76.1	0.27	4.2	1.2	12	AH
C2ZYN6	68.6 *	70.3	68.3 *	71.4	69.6	-1.96 *	6.5	1.4	70.2	-1.92	5.4	1.3	12	XX
E4ED6A	71.6	69.5	71.7	71.7	71.1	-1.44	5.4	1.1	74.8	-0.20	5.4	4.1	8	XX
ER3X93_AL	72.8	75.1	76.7	74.9	74.9	-0.11	7.6	1.6	76.0	0.24	7.4	1.6	12	AL
FZEA72_AL	77.1	73.8	75.2	74.4	75.1	-0.03	6.7	1.5	74.1	-0.47	5.2	2.0	12	XX
G2PCRY	79.7	82.9 X	81.3	80.5	81.1	2.09 *	4.1	1.4	81.1	2.18 *	4.1	1.4	4	TX
GDMFWT_AI	78.7	No DATA	78.5	77.8	78.3	1.11	3.5	0.5	76.6	0.47	4.0	2.4	10	AL
GWA2EV	77.1	75.8	75.8	75.3	76.0	0.28	6.1	0.8	76.5	0.45	6.6	2.5	12	LA
GZT8L6	78.7	75.5	76.2	75.7	76.5	0.47	4.4	1.5	76.2	0.32	4.5	1.2	12	TP
HB7UAW_AL	71.6	69.4	72.1	72.0	71.3	-1.39	7.3	1.3	73.0	-0.87	6.5	1.8	12	AL
HKW2H3	76.4	77.9	74.7	75.1	76.0	0.29	5.1	1.4	73.1	-0.82	5.1	3.4	8	LB
J86UZR	No DATA	70.6	70.4	No DATA	70.5	-1.66	4.7	0.1	71.0	-1.63	5.1	1.8	7	AX
J86UZR_AL	No DATA	73.2	70.7	No DATA	72.0	-1.15	3.9	1.8	73.0	-0.87	5.2	1.5	7	AL
JXCXL4	81.6	75.3	80.6	78.3	79.0	1.32	7.2	2.8	77.2	0.70	8.0	2.5	12	XX
KP2VZ3	78.4	73.7	71.0	72.0	73.8	-0.51	6.9	3.3	74.0	-0.48	6.6	2.0	12	LC
KP2VZ3_AL	77.7	75.1	77.0	72.0	75.4	0.09	5.2	2.6	76.0	0.26	5.7	2.4	12	XX
KUR6A2_AL	76.2	77.4	75.2	73.6	75.6	0.14	6.2	1.6	75.6	0.10	6.1	1.6	12	AL
L4Z6AU	No DATA	76.6	No DATA	No DATA	76.6	0.49	4.8	0.0	79.6	1.60	6.1	1.7	6	AH
L9A9FW_AL	73.7	69.7	78.3	76.7	74.6	-0.21	5.9	3.8 H	75.5	0.06	5.6	2.3	12	AL



Containerboard Interlaboratory Testing Program
Analysis 207
Bursting Strength (Mullen), 31 lb Linerboard - 31K1
 TAPPI Official Test Method T807

Report #673
October 2025

Consensus (All Labs) Results															
Wk Mean	76.06	74.24	75.23	74.95	Month Mean	75.20			Grand Mean	75.33					
Avg SDr	5.72	6.12	5.60	5.30	Avg SD	5.64			Avg SD	5.63					
SD btwn Labs	3.34	2.60	3.25	3.03	SD btwn Labs	2.83			SD btwn Labs	2.66					
Labs Incl	48	48	51	47	SD btwn Wks	1.81			SD btwn Wks	2.60					
Labs Excl	1	2	0	1	Labs Incl	51			Labs Incl	52					
Labs not Rcvd	3	2	1	4											

Key to Instrument Codes Reported by Participants

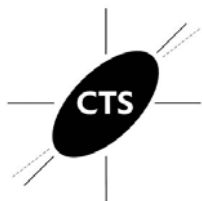
AH	Perkins Model AH	AK	L & W Autoline 300
AL	L & W Autoline 400	AX	Perkins Mullen Tester (model not specified)
LA	L&W Bursting Strength Tester	LB	L&W Burst-O-Matic
LC	L&W Autoline (207 Enrollment)	LJ	L&W Bursting Strength Tester J-Type
TB	TMI Monitor/Burst 1000	TP	Technidyne PROFILE/Plus
TX	TMI Monitor/Burst (model not specified)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
 Analysis 215
Ring Crush, 42 lb Linerboard - 42L4
 TAPPI Official Test Method T822

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
27TAKD	86.2 *H	101.9	76.8 XH	105.6	92.6	-0.74	6.4	13.5 H	81.9	-4.59 X	7.3	12.1 H	12	LZ
29YRJ9	92.0	92.4	93.0	93.1	92.6	-0.75	2.4	0.5 L	93.6	-0.81	2.6	0.9	12	LD
2BHXQJ	98.1	100.4	100.4	100.0	99.7	0.94	3.4	1.1	97.8	0.55	6.6	2.3	12	MB
2UE4JJ	96.7	96.5	98.4	94.6	96.5	0.18	2.8	1.5	94.5	-0.50	3.1	2.7	12	LD
346WEF	101.8	101.5	100.9	100.5	101.2	1.28	2.1	0.6	96.9	0.26	2.4	3.8	12	TH
4B2CJE	96.5	95.6	96.1	94.7	95.7	-0.01	2.4	0.8	95.8	-0.08	2.9	1.6	12	LG
6QNAYE	93.6	96.7	91.6	93.2	93.8	-0.47	3.6	2.1	93.7	-0.78	3.3	2.7	12	LC
73VEN8	96.8	93.9	No DATA	93.3	94.7	-0.25	2.0	1.9	94.4	-0.54	3.4	1.3	11	LD
7U47ZA	95.8 L	95.9 L	96.0 L	96.0 L	95.9	0.04	0.6	0.1 L	96.1	0.01	0.6	0.3 L	12	TU
8YCMD6	98.2	99.9	98.9	97.2	98.5	0.65	3.2	1.1	98.2	0.68	3.0	1.5	12	LD
APZ8J2	95.5	91.5	93.7	93.9	93.7	-0.50	2.9	1.6	94.9	-0.38	3.3	1.5	12	LC
AYKPM9	86.2 *H	87.7 H	88.0 H	83.9 *H	86.5	-2.20 *	8.3	1.9	84.8	-3.67 X	7.3	2.5	8	XX
BG4R83	123.8 X	125.2 X	123.5 X	124.8 X	124.3	6.77 X	3.2	0.8	124.4	9.20 X	3.3	2.0	8	LC
BJMXEC	99.8	99.8 H	105.7 *	103.6	102.2	1.53	4.6	2.9	95.5	-0.20	4.2	5.3	12	XX
E4ED6A	95.9	98.3 H	99.9	100.3	98.6	0.67	5.0	2.0	97.4	0.42	5.4	2.8	11	LD
GLFMEY	90.3	93.3	94.5	96.0	93.5	-0.53	2.9	2.4	93.5	-0.85	3.0	1.8	12	LD
GZT8L6	98.2	97.1	97.6	95.0	97.0	0.29	3.2	1.4	96.2	0.04	3.0	1.8	12	TX
HJZWC9	94.7	94.2	95.4	94.2	94.6	-0.27	3.1	0.6 L	93.0	-0.99	3.1	1.8	12	LC
HKW2H3	98.4	100.6	99.8	101.8	100.1	1.03	3.6	1.4	100.5	1.42	3.9	1.5	12	LD
HUMN9Y	95.4 L	95.4	95.2	95.7 L	95.4	-0.09	1.6	0.2 L	95.4	-0.21	1.7	0.2 L	8	MB
JT2J46	94.3 L	94.2 L	93.9 L	93.2	93.9	-0.44	1.4	0.5 L	99.7	1.17	1.5	4.6	12	MZ
KP2VZ3	93.9	96.5	102.0	107.1 *	99.9	0.97	2.4	5.9	94.5	-0.51	2.4	5.9 H	12	LD
L9A9FW	95.6	97.3	95.8	97.5	96.6	0.19	2.9	1.0	96.5	0.14	3.0	0.7 L	12	LD
LTD99T	93.2	91.2	94.0	94.6	93.2	-0.60	2.8	1.5	93.1	-0.96	3.2	1.7	12	LD
MKFR73	101.6 H	101.9	89.5 H	76.4 XH	92.4	-0.81	8.7	12.1 H	98.3	0.71	5.5	7.8 H	12	MB
MNE423	89.0	90.1	88.0 L	90.4	89.4	-1.52	3.2	1.1	90.2	-1.91	3.5	3.3	12	EM
NMLJZN	98.1	98.3	99.4	99.3	98.8	0.71	2.8	0.7	98.7	0.85	2.8	1.5	12	LD
PELJ2M	105.5 *	104.9	105.5 *	107.6 *	105.9	2.40 *	2.7	1.2	102.9	2.23 *	2.5	2.9	12	LD
PMVYHU	97.4	98.2	95.8	96.6	97.0	0.29	2.9	1.0	96.2	0.04	2.7	1.7	12	EM
RNLPTR	104.4 *	108.5 *	101.4	105.3	104.9	2.17 *	2.9	2.9	103.3	2.34 *	2.6	3.2	12	TU
RRL2PR	90.0 H	100.2	101.1 H	97.8 H	97.3	0.36	8.6	5.0	98.9	0.90	7.1	5.0	12	LD
RVN2PN	97.0	98.5	99.0	97.3	98.0	0.52	4.1	1.0	96.9	0.28	3.2	1.4	12	LD
UADN9L	90.0	90.6	90.6	90.9	90.5	-1.24	2.4	0.4 L	89.8	-2.05 *	2.6	1.0	12	LC
UTL3DU	94.8 L	95.1 L	95.0 L	90.4 L	93.8	-0.46	1.1	2.3	99.0	0.95	1.7	4.1	12	MZ
VNU2YL	92.7	87.8	92.5	92.6	91.4	-1.03	3.8	2.4	93.8	-0.73	3.6	2.4	12	LD



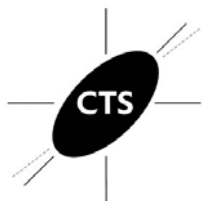
Containerboard Interlaboratory Testing Program
Analysis 215
Ring Crush, 42 lb Linerboard - 42L4
TAPPI Official Test Method T822

Report #673
October 2025

Consensus (All Labs) Results																
Wk Mean	95.36	96.25	96.23	96.26	Month Mean	95.77	Grand Mean	96.09								
Avg SDr	4.25	3.56	3.47	3.46	Avg SD	3.87	Avg SD	3.40								
SD btwn Labs	4.44	4.74	4.52	5.17	SD btwn Labs	4.22	SD btwn Labs	3.08								
Labs Incl	40	40	38	39	SD btwn Wks	3.43	SD btwn Wks	2.88								
Labs Excl	2	2	3	3	Labs Incl	40	Labs Incl	37								
Labs not Rcvd	0	0	1	0												

Key to Instrument Codes Reported by Participants

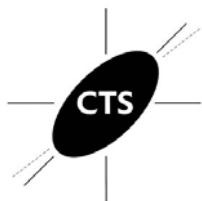
EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
MZ	Messmer Buchel (model not specified)	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	TX	TMI Digital Crush Tester (model not specified)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 217
Ring Crush, 31 lb Linerboard - 31K1
TAPPI Official Test Method T822

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results						Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks		
27TAKD	66.1 H	76.6	56.9 XH	78.6	69.5	-1.03	6.6	10.0 H	61.9	-3.83 X	6.8	9.8 H	12	LZ	
29YRJ9	72.6	72.7	73.3 L	72.7 L	72.8	-0.09	1.7	0.3 L	73.6	0.11	2.0	1.2	12	LD	
2BHXQJ	77.4	77.5	76.7	78.1	77.4	1.24	3.0	0.6	77.6	1.47	3.3	0.4 L	8	MB	
2UE4JJ	76.0	72.6	75.3	74.6	74.6	0.44	2.2	1.5	72.6	-0.22	2.5	2.1	12	LD	
346WEF	76.1	75.2	74.7	75.8 L	75.4	0.68	3.0	0.6	75.4	0.73	2.7	0.7 L	12	TH	
4B2CJE	74.1	73.2	73.2	75.4	74.0	0.25	2.7	1.1	73.7	0.13	2.5	1.0	12	LG	
6QNAYE	67.2	72.2	71.3	70.3	70.3	-0.82	3.4	2.2	69.0	-1.45	3.2	3.2	12	LC	
73VEN8	74.0	73.8	No DATA	74.6	74.1	0.30	2.6	0.4 L	73.3	0.01	2.7	1.0	11	LD	
7U47ZA	74.0 L	74.3 L	73.9 L	73.9 L	74.0	0.27	0.5	0.2 L	73.9	0.20	0.5	0.2 L	12	TU	
8YCMD6	75.8	77.4	77.8	76.6	76.9	1.10	2.3	0.9	75.2	0.67	2.7	1.8	12	LD	
APZ8J2	72.2	70.9	72.8	71.7	71.9	-0.35	3.9	0.8	73.1	-0.05	3.6	1.4	12	LC	
AYKPM9	67.0 H	64.7 *H	67.0 *H	68.4 H	66.8	-1.83	7.2	1.5	66.8	-2.20 *	7.2	1.5	4	LZ	
BJMXEC	75.0	76.4	75.6	75.5	75.6	0.73	3.1	0.6	73.6	0.11	3.7	2.4	12	XX	
E4ED6A	68.4	71.8	70.8	65.0 *	69.0	-1.18	4.0	3.0	69.4	-1.30	4.3	2.5	7	LD	
GLFMEY	68.7	73.3	73.2	74.9	72.5	-0.17	2.3	2.7	72.6	-0.22	3.1	1.6	12	LD	
GZT8L6	72.8	73.8	72.9	73.8	73.3	0.06	2.6	0.6	72.8	-0.17	2.5	1.7	12	TX	
HJZWC9	72.6	74.4	72.8	72.4	73.0	-0.02	2.6	0.9	72.8	-0.14	3.1	0.9	12	LC	
HKW2H3	74.5	74.7	75.3	75.1	74.9	0.52	4.1	0.4 L	74.3	0.33	3.8	0.8	8	LC	
HUMN9Y	72.1	72.6	72.3	72.5	72.4	-0.21	1.6	0.2 L	72.8	-0.15	1.7	0.6 L	12	MB	
JT2J46	75.0 L	67.4 L	68.1 L	68.9 L	69.9	-0.93	1.1	3.5	74.2	0.30	1.3	5.2	8	MZ	
KP2VZ3	75.3	74.8	77.9	78.7	76.7	1.03	2.4	1.9	74.0	0.25	2.8	3.7	12	LD	
L9A9FW	74.0	74.2	72.5	73.5	73.5	0.13	3.4	0.8	73.8	0.18	3.0	1.2	12	LD	
LTD99T	71.3	72.8	73.2	72.9	72.6	-0.16	2.5	0.9	72.2	-0.36	3.3	1.6	12	LD	
MKFR73	58.6 XH	56.9 XH	57.3 XH	57.0 XH	57.4	-4.52 X	10.7	0.8	70.3	-0.99	6.7	9.9 H	12	MB	
MNE423	63.3 *	65.0 *	66.5 *	64.7 *	64.9	-2.38 *	3.8	1.3	65.7	-2.54 *	3.5	3.7	12	EM	
NMLJZN	77.0	78.0	77.8	76.8	77.4	1.23	2.8	0.6	76.8	1.19	2.5	0.9	12	LD	
PELJ2M	81.2 *	80.3	80.0 *	82.6 *	81.0	2.29 *	2.0	1.2	80.1	2.30 *	2.0	1.5	12	LD	
PMVYHU	74.4	75.0	74.4	74.2	74.5	0.41	3.0	0.3 L	73.8	0.18	2.9	0.9	12	EM	
RNLPTR	78.7	79.8	76.0	79.0	78.4	1.52	3.4	1.7	78.5	1.77	3.1	1.7	12	TU	
RRL2PR	58.4 XH	74.3	72.7	56.4 XH	65.5	-2.20 *	7.3	9.4 H	72.9	-0.13	5.5	8.1 H	12	LD	
RVN2PN	71.7	71.9	73.0	71.6	72.1	-0.30	3.9	0.7	72.1	-0.39	3.0	0.5 L	8	LC	
UADN9L	73.4	72.6	72.6	72.0	72.7	-0.13	2.2	0.6	71.3	-0.65	2.6	1.2	12	LC	
UTL3DU	74.1 L	67.4 L	69.7 L	69.2 L	70.1	-0.87	0.9	2.9	75.1	0.63	1.3	4.2	12	MZ	
VNU2YL	69.5	74.4	72.8	72.1	72.2	-0.25	4.0	2.0	72.5	-0.24	3.9	2.6	12	LD	
VYRV8P	66.6 H	66.7 H	69.3 H	67.8 H	67.6	-1.58	6.6	1.3	67.0	-2.13 *	7.2	1.8	8	XX	



Containerboard Interlaboratory Testing Program
Analysis 217
Ring Crush, 31 lb Linerboard - 31K1
TAPPI Official Test Method T822

Report #673
October 2025

Consensus (All Labs) Results															
Wk Mean	72.98	73.59	73.51	73.55	Month Mean	73.10			Grand Mean	73.27					
Avg SDr	3.54	3.19	3.22	3.11	Avg SD	3.46			Avg SD	3.45					
SD btwn Labs	3.70	3.58	3.00	3.76	SD btwn Labs	3.47			SD btwn Labs	2.96					
Labs Incl	38	39	37	38	SD btwn Wks	2.61			SD btwn Wks	2.84					
Labs Excl	3	2	3	3	Labs Incl	39			Labs Incl	39					
Labs not Rcvd	0	0	1	0											

Key to Instrument Codes Reported by Participants

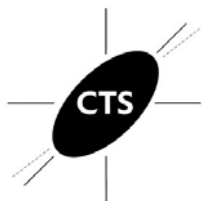
EM	Emerson 1200	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LG	L&W 753
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
MZ	Messmer Buchel (model not specified)	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	TX	TMI Digital Crush Tester (model not specified)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 223
STFI, 42 lb Linerboard - 42L4
 TAPPI Official Test Method T826

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
27TAKD_AL	25.5	23.9	24.5	24.1	24.5	-0.66	1.3	0.7	24.3	-0.97	1.4	0.6	12	AL
29YRJ9_AL	23.8	24.6	23.3 L	23.4	23.8	-1.35	1.3	0.6	24.4	-0.85	1.4	0.7	12	XX
2BHXQJ	25.7	26.4	25.8	26.5	26.1	0.84	1.7	0.4	26.3	1.33	1.5	0.6	12	LA
2JWJYM_AL	24.7	26.3	24.3	25.0	25.1	-0.12	1.6	0.9	23.8	-1.49	1.4	1.5	8	AK
2UE4JJ	23.8	23.0 *	23.8	24.4	23.8	-1.37	1.4	0.6	23.9	-1.39	1.4	0.4	12	LY
4B2CJE	25.8	25.7	26.7 H	25.8	26.0	0.73	1.9	0.5	25.8	0.80	1.7	0.5	12	BK
6QNAYE	25.8	26.1	24.8 L	24.7	25.4	0.14	1.4	0.7	25.5	0.40	1.4	0.5	12	LA
73VEN8	24.7	24.2	23.3	24.9	24.3	-0.89	1.4	0.7	24.7	-0.46	1.3	0.8	12	LA
7U47ZA	25.4	25.8	25.2	25.4	25.5	0.23	2.0	0.3	25.3	0.27	1.8	0.2 L	12	XX
8B3H9B	24.0	25.9	25.4	23.0	24.6	-0.58	1.7	1.3	25.2	0.12	1.7	1.0	12	XX
8YCMD6	25.0	23.7	24.7	25.7	24.8	-0.40	1.3	0.8	24.8	-0.33	1.5	0.6	12	LY
APZ8J2	24.0	No DATA	26.5	No DATA	25.2	0.03	1.7	1.8	25.4	0.34	1.8	0.8	8	LU
AUU2G3	25.7	23.7 H	26.0	23.9 H	24.8	-0.38	2.4	1.2	25.1	0.02	2.1	1.5	12	LH
AYKPM9	24.0	24.5	25.2	25.0 L	24.7	-0.48	1.4	0.5	23.8	-1.46	1.4	1.0	8	LZ
BU6EA4_AL	25.4	26.0	26.1	28.0 *	26.4	1.09	1.8	1.2	25.7	0.63	1.8	1.4	8	AL
BW9AT8	25.7	25.8	25.7	25.1 L	25.6	0.35	1.1	0.3	24.7	-0.43	1.3	0.8	12	LZ
C2ZYN6	26.8	27.6 *	26.2	26.1	26.7	1.38	1.5	0.7	26.3	1.39	1.5	0.7	12	LH
DB4BJD	24.0 L	23.6	23.7 L	23.3 L	23.7	-1.46	0.9	0.3	24.0	-1.21	0.9	0.5	12	LZ
ER3X93_AL	25.9	26.3	27.3	27.4	26.7	1.43	1.7	0.7	25.7	0.68	1.7	1.4	12	AL
FZEA72_AL	24.5 L	25.6 L	25.9 L	24.2 L	25.0	-0.16	0.6	0.8	24.5	-0.73	1.3	0.9	12	XX
GDMFWT	25.4	No DATA	26.3	26.3	26.0	0.75	1.3	0.5	25.4	0.36	1.4	0.8	9	LU
GWA2EV	25.4	25.6	25.7	25.6	25.6	0.35	1.5	0.1 L	25.4	0.28	1.7	0.4	12	LY
HB7UAW_AL	30.1 X	31.6 X	31.5 X	31.6 X	31.2	5.62 X	1.9	0.7	30.7	6.37 X	1.9	0.8	12	AL
HKW2H3	26.1	25.4	25.9	26.0	25.9	0.62	1.6	0.3	26.0	1.01	1.6	0.4	12	LU
J3AEXX	25.8	25.8	26.0	26.2	26.0	0.72	1.3	0.2	25.9	0.94	1.4	0.3	12	LH
J86UZR	No DATA	26.0	26.8	No DATA	26.4	1.13	1.8	0.6	25.8	0.84	1.6	0.5	8	LU
J86UZR_AL	No DATA	26.6	27.0	No DATA	26.8	1.48	2.0	0.3	25.9	0.89	1.5	0.9	8	AL
JKB2PW	23.9 H	24.3	24.0 H	24.4 H	24.2	-0.98	2.5	0.2	24.0	-1.26	2.5	0.4	8	LH
JT2J46	23.9 L	23.7 L	23.1 L	21.6 *L	23.1	-2.02 *	0.8	1.1	24.4	-0.75	0.9	1.4	12	LZ
JXCXL4	25.5 H	25.9	25.5	25.3	25.6	0.32	2.1	0.3	25.0	-0.07	2.0	0.5	12	XX
KP2VZ3	23.0 *	20.0 X	25.0	26.2	23.6	-1.55	1.7	2.7 H	22.8	-2.67 *	1.4	1.7 H	12	LZ
KP2VZ3_AL	40.6 XL	44.5 XL	44.0 XL	42.7 XL	43.0	16.68 X	0.0	1.7	40.2	17.20 X	0.0	3.8 H	12	AL
KUR6A2_AL	25.7	25.7	25.2	25.2	25.5	0.23	1.5	0.3	25.2	0.07	1.4	0.4	12	AL
L4Z6AU	No DATA	26.6	No DATA	No DATA	26.6	1.27	1.6	0.0	27.0	2.19 *	1.6	0.4	7	LU
L9A9FW_AL	25.0	24.8	23.5 H	25.9 H	24.8	-0.38	2.2	1.0	24.3	-0.92	2.0	0.9	12	AL



Containerboard Interlaboratory Testing Program

Analysis 223

STFI, 42 lb Linerboard - 42L4

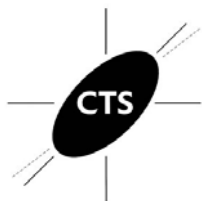
TAPPI Official Test Method T826

Report #673

October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
LDL9GU	44.1 X	44.0 XH	42.9 XH	43.0 XH	43.5	17.17 X	2.9	0.6	31.1	6.82 X	2.9	9.2 H	12	LH
LTD99T_AL	24.9	25.1	26.0	25.2 L	25.3	0.10	1.3	0.5	25.1	-0.01	1.9	0.8	12	AL
MKFR73	25.1	25.5	24.7	25.7	25.3	0.05	1.6	0.5	25.4	0.35	1.6	0.7	12	LA
MLB9HY	26.6	26.6	25.9	26.7	26.4	1.17	1.8	0.4	26.3	1.39	1.8	0.6	12	LH
MTCKEW	26.2	26.2	25.8	22.2 *L	25.1	-0.12	1.5	2.0 H	25.2	0.11	1.7	1.2	12	LU
NMLJZN_AL	25.3	24.8	25.0	25.7	25.2	0.00	1.6	0.4	25.0	-0.15	1.4	0.4	12	AL
PELJ2M	26.1	26.6	26.3	26.8	26.4	1.16	1.7	0.3	26.1	1.12	1.6	0.4	12	LH
PEP3NP_AL	23.4 L	23.5	23.9	23.5	23.6	-1.52	1.1	0.2	23.3	-2.07 *	1.3	0.4	12	AL
RNLPTR	27.6 *	27.6 *	27.6 *	27.6	27.6	2.25 *	1.3	0.0 L	26.3	1.37	1.1	1.3	12	LA
RRL2PR	26.1 H	21.4 XH	21.3 X	27.9	24.2	-0.96	2.4	3.3 H	31.9	7.77 X	4.6	17.5 H	12	LH
RVN2PN	24.8	25.7	24.4	24.6 H	24.9	-0.32	1.8	0.6	25.2	0.11	1.8	0.8	12	LW
U2NZDJ	24.3 L	24.8	23.6	24.2	24.2	-0.92	1.3	0.5	24.1	-1.13	1.5	0.4	12	LW
UADN9L	22.9 *	22.9 *	23.1	23.3	23.0	-2.03 *	1.5	0.2	22.3	-3.21 X	1.6	0.6	12	LZ
UTL3DU	24.1	23.4 L	23.6 L	21.7 *L	23.2	-1.90	0.8	1.0	24.5	-0.71	0.7	1.3	12	LZ
VNU2YL	24.8	23.9	24.5	25.3	24.6	-0.55	1.6	0.6	25.0	-0.18	2.0	1.3	12	LA
VYRV8P	27.8 *	26.3	26.6	27.2	27.0	1.68	1.9	0.7	26.3	1.33	1.8	0.7	12	XX
W3LCWN	27.0	26.8	28.0 *H	25.4 H	26.8	1.47	2.0	1.1	26.8	1.90	1.9	0.9	12	LA
WFRHRM	25.6	26.3	25.4	26.2	25.9	0.63	1.5	0.4	25.7	0.67	1.6	0.5	12	LA
WQTQQT	25.8	25.5	25.1	25.8	25.5	0.32	1.9	0.3	25.0	-0.18	1.8	0.7	12	LY
WQTQQT_AI	26.1	25.8	25.5	26.0	25.9	0.61	1.8	0.3	25.2	0.07	1.8	0.6	12	AL
WV29PL_AL	25.1	25.7	25.6	25.6	25.5	0.26	1.4	0.3	25.4	0.31	1.4	0.4	12	AL
XEE48K	42.7 XL	41.4 XL	43.0 XL	40.7 XL	42.0	15.73 X	0.0	1.1	42.0	19.21 X	0.0	1.1	4	XX
XFP7UJ	25.0	24.0	25.1	24.1	24.5	-0.62	1.7	0.6	24.3	-0.95	1.6	0.5	12	LU
XHTQRQ	26.5 L	24.9 L	25.1 L	24.9 L	25.4	0.15	0.0	0.7	25.5	0.51	0.0	0.6	12	LH
Z9MHBH	24.4	24.3	25.2	24.6	24.6	-0.55	1.3	0.4	24.5	-0.74	1.4	0.4	12	LU
ZFNTLG_AL	24.5	24.6	24.6	24.3	24.5	-0.67	1.6	0.2	24.5	-0.68	1.5	0.3	12	AL

Consensus (All Labs) Results									
Wk Mean	25.18	25.28	25.25	25.15	Month Mean	25.20	Grand Mean	25.11	
Avg SDr	1.64	1.64	1.58	1.59	Avg SD	1.62	Avg SD	1.59	
SD btwn Labs	1.07	1.15	1.17	1.44	SD btwn Labs	1.06	SD btwn Labs	0.88	
Labs Inclcd	54	53	55	53	SD btwn Wks	0.90	SD btwn Wks	0.83	
Labs Exclcd	4	6	5	4	Labs Inclcd	57	Labs Inclcd	55	
Labs not Rcvd	3	2	1	4					



Containerboard Interlaboratory Testing Program

Analysis 223

STFI, 42 lb Linerboard - 42L4

TAPPI Official Test Method T826

Report #673

October 2025

Key to Instrument Codes Reported by Participants

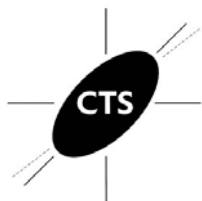
AK	L & W Autoline 300	AL	L & W Autoline 400
BK	Buchel Strip Compression Tester BK-155	LA	L&W Autoline (223 Enrollment)
LH	L&W 282	LU	L&W 52 without moisture correction(was 53)
LW	L&W 53 with moisture correction (was 53M)	LY	L&W 152 without moisture correction
LZ	L&W (model not specified)	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
Analysis 225
STFI, 31 lb Linerboard - 31K1
TAPPI Official Test Method T826

Report #673
October 2025

Weekly Means																Monthly Results				Cumulative Results				
WebCode	Week 1	Week 2	Week 3	Week 4		Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst									
27TAKD_AL	20.6	20.0	19.2	19.2	L	19.7	-0.94	1.1	0.7	19.9	-1.04	1.3	0.5	12	XX									
29YRJ9_AL	20.1	20.4	19.5	19.3		19.8	-0.84	1.2	0.5	20.1	-0.69	1.3	0.4	12	XX									
2BHXQJ	25.7 X	26.4 X	25.8 XH	26.5 X		26.1	5.82 X	1.7	0.4	22.8	3.84 X	1.7	2.5 H	12	LA									
2JWJYM_AL	21.8	22.7 *	22.4	22.0		22.2	1.71	1.7	0.4	20.3	-0.38	1.6	1.5 H	12	AK									
2UE4JJ	19.1	19.7	19.7	20.3		19.7	-0.97	1.4	0.5	19.6	-1.46	1.3	0.4	12	LY									
4B2CJE	19.6 L	19.9	19.2	20.5		19.8	-0.89	1.3	0.5	19.7	-1.38	1.4	0.4	12	LW									
6QNAYE	21.4	21.3	20.8	21.4		21.2	0.64	1.3	0.3	20.8	0.55	1.4	0.6	12	LA									
73VEN8	20.3	21.3	18.3 *L	20.3		20.1	-0.60	1.1	1.3	20.1	-0.77	1.2	0.9	12	LW									
7U47ZA	20.6	20.3	20.3	20.5		20.4	-0.21	1.1	0.1 L	20.6	0.16	1.1	0.4	12	XX									
8B3H9B	19.3	19.5 H	19.0	20.1		19.5	-1.22	1.6	0.5	19.9	-1.11	1.7	0.7	12	XX									
8YCMD6	19.6	20.5	20.7 L	20.8		20.4	-0.25	1.1	0.6	20.2	-0.47	1.3	0.4	12	LY									
APZ8J2	20.4	No DATA	20.8	No DATA		20.6	0.00	1.1	0.3	20.9	0.64	1.4	0.4	7	LU									
AUU2G3	20.6 H	20.4	20.9	19.5 H		20.3	-0.31	1.9	0.6	20.8	0.41	1.7	0.8	12	LH									
AYKPM9	20.4	20.6	20.3	20.7		20.5	-0.11	1.3	0.2 L	20.5	0.00	1.3	0.2 L	4	XX									
BU6EA4_AL	23.3 X	23.4 X	22.6 *	22.2		22.9	2.38 *	1.7	0.6	23.2	4.54 X	1.8	0.7	8	AL									
BW9AT8	20.4	20.4	20.8	20.3 L		20.5	-0.15	0.9	0.3	20.1	-0.74	1.1	0.8	12	XX									
C2ZYN6	21.4	20.6	21.1 L	21.4		21.1	0.54	1.2	0.4	21.2	1.08	1.3	0.4	12	LH									
DB4BJD	19.2 L	20.2 L	19.6 L	19.1 L		19.5	-1.16	0.6	0.5	19.3	-2.02 *	0.7	0.7	12	LZ									
ER3X93_AL	21.9	21.9	22.8 *	22.3 *		22.2	1.70	1.4	0.4	21.0	0.85	1.3	1.1	12	AL									
FZEA72_AL	24.5 XH	22.2 L	21.8 L	21.2		22.4	1.93	1.3	1.4	21.2	1.17	1.3	1.3	12	XX									
GDMFWT	20.3	No DATA	20.9	21.2 H		20.8	0.20	1.6	0.5	20.7	0.28	1.4	0.3	10	LU									
GWA2EV	20.4	21.9	21.0	20.4		20.9	0.32	1.1	0.7	20.8	0.44	1.2	0.7	12	LU									
HB7UAW_AL	26.4 X	25.6 X	24.9 X	25.6 X		25.6	5.34 X	1.7	0.6	25.4	8.13 X	1.6	0.5	12	AL									
HKW2H3	20.1	19.6	20.0	19.6		19.8	-0.86	1.3	0.3	20.9	0.65	1.5	1.2	8	LW									
J3AEXX	20.8	20.6	21.3	20.6		20.8	0.19	1.1	0.4	20.7	0.25	1.2	0.3	12	LH									
J86UZR	No DATA	21.5	21.0	No DATA		21.2	0.67	1.5	0.4	20.5	0.04	1.4	0.7	7	LU									
J86UZR_AL	No DATA	22.7 *	22.0	No DATA		22.4	1.87	1.7	0.5	21.6	1.85	1.5	0.7	7	AL									
JKB2PW	19.5	19.1 H	20.7 H	19.9 H		19.8	-0.88	2.3	0.7	19.6	-1.50	2.4	0.6	8	LH									
JT2J46	18.8 L	18.7 *L	18.8 L	18.1 *L		18.6	-2.16 *	0.6	0.3	20.0	-0.92	0.7	1.2	12	LZ									
JXCXL4	19.7	20.8	19.8	20.3		20.2	-0.50	1.6	0.5	20.0	-0.90	1.6	0.5	12	XX									
KP2VZ3	17.8 X	24.1 X	20.9	20.7		20.9	0.26	1.6	2.6 H	19.6	-1.59	1.4	1.8 H	12	LZ									
KP2VZ3_AL	33.5 XL	35.6 XL	36.3 XL	36.3 XL		35.4	15.75 X	0.0	1.3	34.3	23.06 X	0.0	1.6 H	12	AL									
KUR6A2_AL	20.7	20.8	21.3	20.9		20.9	0.33	1.2	0.3	21.3	1.26	1.4	0.8	12	AL									
L4Z6AU	No DATA	21.4	No DATA	No DATA		21.4	0.83	1.4	0.0	21.9	2.35 *	1.7	0.4	6	LU									
L9A9FW_AL	21.4	20.4 H	21.0	20.3		20.8	0.17	1.8	0.5	20.3	-0.38	1.8	0.5	12	AL									



Containerboard Interlaboratory Testing Program

Analysis 225

STFI, 31 lb Linerboard - 31K1

TAPPI Official Test Method T826

Report #673

October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	
LDL9GU	34.4 XH	34.2 XH	34.7 X	34.1 X	34.4	14.61 X	1.9	0.3	25.1	7.68 X	1.6	6.9 H	12	LH
LTD99T_AL	20.3	20.3	21.6	20.6	20.7	0.10	1.2	0.6	20.7	0.24	1.7	0.7	12	AL
MKFR73	19.4	20.7	19.5	19.4	19.7	-0.95	1.4	0.6	20.0	-0.80	1.4	0.6	12	LA
MLB9HY	21.6	21.3	21.1	21.9	21.5	0.92	1.6	0.4	21.5	1.69	1.7	0.4	12	LH
MTCKEW	21.1	20.7	21.0	18.5 *L	20.3	-0.32	1.5	1.2	20.5	0.00	1.6	0.9	12	LU
NMLJZN_AL	21.5	19.8 H	20.6	20.4	20.6	-0.04	1.4	0.7	20.5	0.03	1.3	0.5	12	AL
PELJ2M	20.8	21.9	21.2	21.5	21.4	0.80	1.5	0.4	21.1	0.99	1.3	0.4	12	LH
PEP3NP_AL	20.3	19.8	19.4	19.1	19.7	-1.03	1.3	0.5	19.5	-1.66	1.2	0.7	12	XX
RNLPTR	22.1 *	22.1	21.4	21.0	21.7	1.10	1.2	0.5	21.6	1.85	1.1	0.4	12	LA
RRL2PR	20.5	33.9 X	16.8 X	21.3	23.1	2.66 *	1.6	7.4 H	23.0	4.17 X	1.8	5.3 H	12	LH
RVN2PN	20.8	20.6	22.2	21.5	21.3	0.73	1.6	0.7	21.1	0.94	1.7	0.6	12	LW
U2NZDJ	19.4	20.3	19.7	20.0	19.9	-0.81	1.2	0.4	19.8	-1.23	1.2	0.3	12	LW
UADN9L	18.6 *	18.9	19.2	19.5	19.0	-1.68	1.4	0.4	18.7	-3.11 X	1.4	0.4	12	LZ
UTL3DU	19.5	19.7	19.4 L	18.0 *L	19.2	-1.56	0.9	0.8	20.3	-0.41	0.8	1.0	12	LZ
VNU2YL	19.4	20.1	20.8	19.9	20.0	-0.62	1.7	0.6	20.8	0.41	1.8	0.9	12	LA
VYRV8P	20.8	20.5	21.0	20.8	20.8	0.16	1.5	0.2	21.1	1.05	1.5	0.5	8	XX
W3LCWN	3.7 XL	3.8 XL	3.8 XL	3.8 XL	3.7	-17.94 X	0.3	0.1 L	13.1	-12.40 X	1.6	10.0 H	8	XX
WFRHRM	21.8	20.6	20.7	20.3	20.9	0.25	1.5	0.7	20.9	0.57	1.5	0.6	12	LA
WQTQQT	20.3	19.9	20.5	20.1	20.2	-0.44	1.5	0.3	20.2	-0.49	1.6	0.3	12	LU
WQTQQT_AI	20.9	20.3	20.0 H	20.6	20.4	-0.20	1.8	0.4	20.4	-0.21	1.8	0.4	12	AL
WV29PL_AL	21.7	20.8	20.7	21.2	21.1	0.51	1.2	0.5	21.0	0.86	1.2	0.4	12	AL
XEE48K	33.8 XL	33.2 XL	34.0 XL	34.1 XL	33.8	13.99 X	0.0	0.4	33.8	22.24 X	0.0	0.4	4	XX
XFP7UJ	19.8	19.5	20.7	19.9	20.0	-0.68	1.4	0.5	20.2	-0.58	1.4	0.4	12	LU
XHTQRQ	21.1 L	20.8 L	20.6 L	20.3 L	20.7	0.09	0.0	0.3	20.8	0.47	0.0	0.4	12	LH
Z9MHBH	20.5	21.0	20.0	20.1	20.4	-0.23	1.3	0.4	20.3	-0.32	1.2	0.5	12	LU
ZFNTLG_AL	20.0	20.5	20.2 H	20.3	20.2	-0.40	1.6	0.2	20.5	-0.04	1.4	0.7	12	AL

Consensus (All Labs) Results									
Wk Mean	20.42	20.59	20.56	20.38	Month Mean	20.62	Grand Mean	20.51	
Avg SDr	1.37	1.44	1.38	1.35	Avg SD	1.40	Avg SD	1.42	
SD btwn Labs	0.87	0.90	0.97	0.96	SD btwn Labs	0.94	SD btwn Labs	0.60	
Labs Inclcd	49	50	53	51	SD btwn Wks	1.21	SD btwn Wks	0.72	
Labs Exclcd	9	9	7	6	Labs Inclcd	55	Labs Inclcd	52	
Labs not Rcvd	3	2	1	4					



Containerboard Interlaboratory Testing Program
Analysis 225
STFI, 31 lb Linerboard - 31K1
TAPPI Official Test Method T826

Report #673
October 2025

Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	AL	L & W Autoline 400
LA	L&W Autoline (223 Enrollment)	LH	L&W 282
LU	L&W 52 without moisture correction (was 53)	LW	L&W 53 with moisture correction (was 53M)
LY	L&W 152 (was 52M)	LZ	L&W (model not specified)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
 Analysis 228
Roughness - Stylus Method, 42 lb Linerboard - 42L4
 TAPPI Official Test Method T575

Report #673
October 2025

WebCode	Monthly Results				Cumulative Results					Inst
	Mean	CPV	SD		Mean	CPV	SD	Months	Months	
27TAKD_AL	201.2	0.91	40.22	H	154.7	-1.34	32.25	4		AL
2BHXQJ	177.9	-0.11	16.48		201.9	0.91	20.40	4		LA
2UE4JJ	177.8	-0.11	21.85		178.2	-0.21	4.77	4		LS
73VEN8	179.1	-0.06	22.89		139.4	-2.07 *	71.02	H	4	LA
8YCMD6	192.5	0.53	16.00		193.7	0.52	5.15		4	EV
APZ8J2	152.2	-1.24	8.11	L	160.3	-1.07	10.61		4	EV
AUU2G3	150.7	-1.31	14.10		150.8	-1.52	3.58	L	4	LS
BU6EA4_AL	197.2	0.74	26.41		215.0	1.54	39.97		4	AL
DB4BJD	192.9	0.55	10.62		184.2	0.07	7.31		4	EV
ER3X93_AL	178.2	-0.10	16.86		171.5	-0.53	7.51		4	AL
FZEA72_AL	257.8	3.40 X	27.15		255.2	3.46 X	2.45	L	4	AL
GDMFWT	240.3	2.63 *	37.74	H	212.4	1.42	20.09		4	EV
HB7UAW_AL	83.8	-4.25 X	9.48		59.4	-5.89 X	37.37		4	AL
J86UZR_AL	160.3	-0.88	20.24		160.6	-1.06	3.44	L	4	AL
KP2VZ3	0.3	-7.92 X	0.02	L	0.3	-8.71 X	0.00	L	4	LA
KP2VZ3_AL	187.2	0.30	24.58		191.4	0.42	5.91		4	AL
KUR6A2_AL	183.7	0.14	20.38		191.1	0.40	37.66		4	AL
MKFR73	174.2	-0.27	18.99		187.7	0.24	16.85		4	LA
MLB9HY	185.8	0.24	11.10		182.3	-0.02	6.76		4	EV
PEP3NP_AL	168.5	-0.52	30.52		203.9	1.01	51.43	H	4	AL
RNLPTR	193.1	0.56	10.99		195.1	0.59	6.64		4	LA
RVN2PN	143.8	-1.61	17.88		209.1	1.26	46.85		4	XX
UADN9L	182.3	0.08	14.87		184.8	0.10	8.98		4	EV
UQ3W7J	230.4	2.20 *	23.01		214.7	1.53	32.05		4	LS
VNU2YL	146.7	-1.48	13.12		141.8	-1.95 *	5.75		4	LA
VYRV8P	183.7	0.15	21.32		181.9	-0.04	8.70		3	EV
W3LCWN	174.3	-0.27	27.70		180.0	-0.13	5.42		4	LA
WQTQQT	163.7	-0.73	13.22		181.1	-0.08	14.60		4	XX
WQTQQT_AL	160.8	-0.86	16.71		178.8	-0.19	17.08		4	AL
WV29PL_AL	183.3	0.13	15.77		185.2	0.12	7.26		4	AL
XFP7UJ	210.0	1.30	19.25		199.4	0.80	7.93		4	EV
ZFNTLG	146.8	-1.48	19.93		154.1	-1.37	8.13		4	LS
ZFNTLG_AL	193.5	0.57	23.10		196.3	0.65	8.70		4	AL



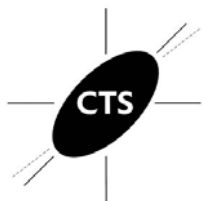
Containerboard Interlaboratory Testing Program
Analysis 228
Roughness - Stylus Method, 42 lb Linerboard - 42L4
TAPPI Official Test Method T575

Report #673
October 2025

Consensus (All Labs) Results			
Month Mean	180.40	Grand Mean	182.72
Avg SD	21.11	Avg SD Months	24.13
SD btwn Labs	22.75	SD btwn Labs	20.93
Labs Incl	30	Labs Incl	30

Key to Instrument Codes Reported by Participants

AL	L & W Autoline 400	EV	Emveco Microgage Model 210-R
LA	L&W Autoline (228 Enrollment)	LS	L&W 263
XX	Instrument make/model not specified by lab		



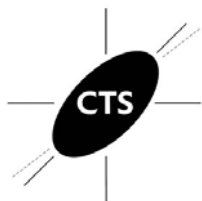
Containerboard Interlaboratory Testing Program
 Analysis 229
Roughness - Sheffield Method, 42 lb Linerboard - 42L4
 TAPPI Official Test Method T538

Report #673
October 2025

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
29YRJ9_AL	396.2	0.25	3.19	395.4	0.07	1.22	3	XX
2JWJYM_AL	405.4	0.96	4.73	404.1	0.74	1.85	2	AK
2UE4JJ	386.4	-0.50	8.46	390.4	-0.31	6.02	3	XX
BU6EA4_AL	405.1	0.94	5.32	410.9	1.27	5.52	3	AL
ER3X93_AL	379.6	-1.03	6.45	380.9	-1.05	4.65	3	AL
FZEA72_AL	384.8	-0.63	5.51	387.8	-0.52	2.60	3	XX
KP2VZ3_AL	378.2	-1.14	4.54	378.4	-1.24	2.61	3	AL
KUR6A2_AL	365.3	-2.14 *	3.80	366.6	-2.15 *	2.61	3	AL
L9A9FW	389.8	-0.24	6.80	394.5	0.00	4.75	3	PP
LTD99T_AL	395.6	0.21	4.99	398.7	0.32	2.66	3	AL
MNE423	344.0	-3.79 X	2.58 L	345.6	-3.77 X	4.59	3	TS
NMLJZN_AL	392.3	-0.05	9.91	391.9	-0.20	0.32 L	3	AL
VYRV8P	401.3	0.65	7.95	404.5	0.77	3.08	3	XX
WQTQQT_AL	400.0	0.55	7.47	397.0	0.19	2.69	3	AL
Z9MHBH	396.3	0.26	6.75	397.9	0.26	2.60	3	XX
ZFNTLG_AL	417.5	1.90 *	4.71	418.2	1.83	3.33	3	AL
Consensus (All Labs) Results								
Month Mean			392.92	Grand Mean			394.48	
Avg SD			6.30	Avg SD Months			3.44	
SD btwn Labs			12.91	SD btwn Labs			12.95	
Labs Incl			15	Labs Incl			15	

Key to Instrument Codes Reported by Participants

AK	L & W Autoline 300	AL	L & W Autoline 400
PP	Technidyne Profile/Plus	TS	TMI Monitor/Smoothness
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 231
Internal Bond, 42 lb Linerboard - 42L
TAPPI Official Test Method T569

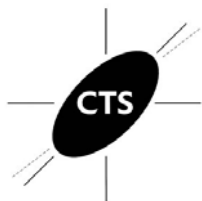
Report #673
October 2025

WebCode	Monthly Results				Cumulative Results				
	Mean	CPV	SD		Mean	CPV	SD Months	Months	Inst
27TAKD	114.8	-1.90	3.90		141.9	-1.01	18.56	4	TM
29YRJ9	172.8	0.64	19.79		176.9	1.05	10.59	4	HY
6QNAYE	152.6	-0.25	11.72		152.6	-0.38	1.18 L	4	TM
73VEN8	180.0	0.95	6.04		179.3	1.19	9.97	4	HY
8YCMD6	146.0	-0.53	7.68		172.7	0.81	20.52	4	HZ
APZ8J2	123.2	-1.53	13.77		132.5	-1.57	12.00	4	TM
BG4R83	129.6	-1.25	6.23		134.4	-1.45	6.79	2	SC
BU6EA4	132.8	-1.11	5.07		66.5	-5.46 X	93.81	2	TM
CABZA6	163.6	0.24	4.21		158.4	-0.04	7.61	4	TM
GDMFWT	139.6	-0.81	5.94		145.1	-0.82	5.70	4	TM
HB7UAW	0.2	-6.91 X	0.01 L		0.1	-9.37 X	0.02 L	4	TM
JKB2PW	157.8	-0.02	13.44		160.7	0.10	4.10	2	HY
KUR6A2	158.2	0.00	12.70		143.9	-0.90	15.36	4	TM
L9A9FW	182.4	1.06	19.44		176.0	1.00	9.44	4	HY
LTD99T	189.3	1.36	15.05		178.1	1.12	9.17	4	TM
MLB9HY	193.8	1.56	7.46		149.0	-0.60	32.31 H	4	TM
NAWLYQ	148.2	-0.44	5.89		150.0	-0.54	5.99	4	TM
NMLJZN	186.0	1.22	23.02 H		173.4	0.85	19.71	4	LZ
UQ3W7J	151.6	-0.29	4.62		161.6	0.15	10.93	4	HY
WFRHRM	191.6	1.46	6.73		181.0	1.29	15.03	4	HZ
WNP7TK	151.8	-0.28	7.95		159.3	0.01	8.38	4	XX
WQTQQT	145.2	-0.57	5.89		145.1	-0.82	5.03	4	TM
XFP7UJ	153.0	-0.23	7.97		161.9	0.17	15.24	4	TM
Z9MHBH	188.7	1.33	16.93		190.5	1.85	9.93	4	HY
ZFNTLG	144.3	-0.61	14.05		134.2	-1.47	7.30	4	TM

Consensus (All Labs) Results			
Month Mean	158.20	Grand Mean	159.04
Avg SD	11.59	Avg SD Months	13.15
SD btwn Labs	22.87	SD btwn Labs	16.96
Labs Incl	24	Labs Incl	23

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Scott Bond Type	152.96	22.70	5.25	17
Modified Scott Bond Mechanics	186.00	4.25	27.80	4



Containerboard Interlaboratory Testing Program

Analysis 231

Internal Bond, 42 lb Linerboard - 42L

TAPPI Official Test Method T569

Report #673

October 2025

Key to Instrument Codes Reported by Participants

HY	Huygen Digitized Scott Internal Bond Tester	HZ	Huygen Internal Bond Tester with AccuPress
LZ	L&W (model not specified)	SC	Scott Internal Bond Tester (Manual)
TM	TMI Monitor/Internal Bond Tester	XX	Instrument make/model not specified by lab



Containerboard Interlaboratory Testing Program
Analysis 234
COF Inclined Plane (Slide Angle), 42 lb Linerboard - 42L
 TAPPI Official Test Method T815

Report #673
October 2025

WebCode	Monthly Results			Cumulative Results			
	Mean	CPV	SD	Mean	CPV	SD Months	Months
27TAKD	32.2	1.54	4.08	31.1	1.15	1.25	4
29YRJ9	25.6	-0.39	3.05	25.9	-0.58	1.31	4
2BHXQJ	26.8	-0.04	1.79	25.6	-0.67	2.33	4
2UE4JJ	31.6	1.37	2.61	27.1	-0.19	4.64	4
73VEN8	27.2	0.08	3.56	28.4	0.25	2.28	4
8YCMD6	23.4	-1.03	2.79	30.8	1.03	5.19	4
APZ8J2	21.4	-1.62	1.67	29.1	0.49	6.60	H 4
AUU2G3	22.0	-1.44	0.71	21.6	-2.02 *	0.53	4
BG4R83	27.0	0.03	1.66	27.3	-0.12	0.34	2
BU6EA4	19.6	-2.14 *	4.62	24.0	-1.21	4.84	4
ER3X93	30.9	1.15	2.16	30.3	0.89	2.45	4
GDMFWT	27.8	0.26	2.17	29.3	0.55	2.11	4
HB7UAW	25.4	-0.45	1.52	25.2	-0.80	0.56	4
JKB2PW	29.8	0.84	1.10	28.4	0.26	1.18	3
KUR6A2	29.6	0.79	2.44	30.8	1.06	1.50	4
L9A9FW	30.4	1.02	3.05	29.4	0.59	1.72	4
LDL9GU	21.4	-1.62	2.51	20.8	-2.27 *	3.00	4
MLB9HY	31.2	1.25	1.30	30.9	1.07	1.12	4
NMLJZN	23.4	-1.03	2.53	21.4	-2.07 *	1.42	4
PEP3NP	26.6	-0.10	1.82	28.6	0.30	2.59	4
RVN2PN	29.6	0.78	3.78	29.4	0.57	2.09	4
UADN9L	30.2	0.96	2.85	30.1	0.80	2.28	4
UQ3W7J	28.4	0.43	1.14	31.4	1.25	6.34	H 4
UW9PZF	28.2	0.37	2.59	30.9	1.07	3.75	2
WQTQQT	27.6	0.20	1.82	26.8	-0.28	1.07	4
XFP7UJ	22.6	-1.27	1.67	26.0	-0.56	2.27	4
XHTQRQ	25.6	-0.39	1.34	25.3	-0.79	0.34	L 4
Z9MHBH	26.4	-0.17	2.08	26.9	-0.24	0.96	4
ZFNTLG	29.0	0.61	2.00	29.1	0.47	1.27	4

Consensus (All Labs) Results			
Month Mean	26.93	Grand Mean	27.64
Avg SD	2.47	Avg SD Months	2.87
SD btwn Labs	3.42	SD btwn Labs	3.01
Labs Incl	29	Labs Incl	29

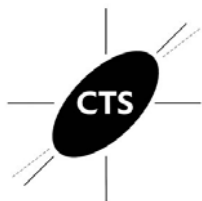


Containerboard Interlaboratory Testing Program
Analysis 234
COF Inclined Plane (Slide Angle), 42 lb Linerboard - 42L
TAPPI Official Test Method T815

Report #673
October 2025

Key to Instrument Codes Reported by Participants

ZZ Instruments No Longer Tracked



Containerboard Interlaboratory Testing Program

Analysis 237

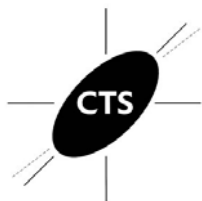
Report #673

October 2025

Air Resistance, 42 lb Linerboard - 42L4

TAPPI Official Test Method T460

WebCode	Monthly Results				Cumulative Results					
	Mean	CPV	SD		Mean	CPV	SD Months	Months	Inst	
27TAKD_AL	32.2	-1.18	0.79	L	33.5	0.01	1.18	4	AL	
29YRJ9	37.2	1.64	3.79		34.4	0.74	1.93	4	TP	
29YRJ9_AL	32.3	-1.09	2.50		32.2	-0.98	0.77	4	XX	
2BHXQJ	32.0	-1.25	2.60		31.3	-1.60	0.54	4	LA	
2JWJYM_AL	38.6	2.45 *	12.58	H	34.4	0.76	3.63	H	3	AK
2UE4JJ	34.7	0.24	3.53		34.6	0.91	0.03	L	4	GA
73VEN8	35.1	0.49	1.77		68.9	26.93 X	70.17	H	4	LP
7EPVD9	34.7	0.27	1.64		34.2	0.53	1.33		4	LP
8YCMD6	35.6	0.73	3.32		34.0	0.40	1.54		4	LP
APZ8J2_AL	35.2	0.54	1.64		34.7	0.98	0.86		4	AL
AUU2G3	32.5	-1.02	2.92		31.9	-1.16	1.04		4	TD
BU6EA4_AL	34.8	0.28	2.52		25.1	-6.38 X	16.71	H	4	AL
E4ED6A	33.4	-0.48	4.77		33.4	-0.04	0.54		4	GG
ER3X93_AL	31.3	-1.69	2.66		30.6	-2.19 *	0.78		4	AL
FZEA72_AL	36.5	1.27	3.49		35.1	1.23	1.20		4	XX
GDMFWT_AL	31.9	-1.30	3.93		33.4	-0.02	1.24		4	AL
HB7UAW_AL	36.2	1.06	2.40		36.3	2.19 *	0.24		2	AL
J86UZR_AL	32.5	-0.99	2.27		33.2	-0.19	0.47		4	AL
KP2VZ3_AL	34.1	-0.12	1.08	L	32.1	-1.05	2.31		4	XX
KUR6A2_AL	32.2	-1.16	2.18		32.9	-0.40	1.35		4	AL
L9A9FW	35.8	0.85	4.77		34.8	1.01	0.77		4	TP
LDL9GU	34.2	-0.01	2.06		33.7	0.20	0.78		4	LP
LTD99T_AL	32.7	-0.90	1.74		31.9	-1.21	0.94		4	AL
MKFR73	34.4	0.09	2.01		32.3	-0.90	1.47		4	LA
MLB9HY	34.1	-0.07	2.74		33.6	0.09	1.33		4	LP
NMLJZN_AL	35.4	0.63	0.58	L	35.4	1.52	2.89	H	4	AL
PELJ2M	35.5	0.69	2.84		33.4	-0.08	2.09		4	XX
PEP3NP_AL	31.4	-1.61	1.56		31.1	-1.80	0.91		4	AL
RNLPTR	35.0	0.38	2.38		32.8	-0.50	1.46		4	LA
RVN2PN	32.4	-1.07	1.66		31.3	-1.67	1.24		4	LP
UQ3W7J	36.3	1.11	9.17	H	33.6	0.08	2.58		4	LP
UW9PZF_AL	32.8	-0.85	1.31	L	32.4	-0.81	0.51		2	AL
VNU2YL	34.3	0.03	2.79		33.3	-0.15	0.78		4	LA
W3LCWN	34.4	0.08	1.58		33.5	0.06	1.49		4	LA
WNP7TK	31.8	-1.36	1.36	L	31.8	-1.23	0.01		2	LP
WQTQQT	34.1	-0.08	1.67		34.0	0.40	0.82		4	LP
WQTQQT_AL	34.5	0.12	2.37		34.9	1.08	1.62		4	AL
WV29PL_AL	35.0	0.44	1.09	L	34.7	0.91	0.94		4	AL
XFP7UJ	38.5	2.37 *	3.84		35.4	1.51	2.04		4	GA



Containerboard Interlaboratory Testing Program

Analysis 237

Report #673

October 2025

Air Resistance, 42 lb Linerboard - 42L

TAPPI Official Test Method T460

WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SD	Mean	CPV	SD Months	Months	Inst
XHTQRQ	33.2	-0.61	2.44	33.3	-0.14	0.61	4	XX
Z3YTVE	35.1	0.45	2.52	34.4	0.70	1.62	4	LP
Z9MHBH	35.6	0.72	5.22	33.8	0.28	1.38	4	TP
ZFNTLG_AL	34.1	-0.08	1.45 L	34.1	0.53	1.09	4	AL
Consensus (All Labs) Results								
Month Mean			34.26	Grand Mean		33.45		
Avg SD			3.52	Avg SD Months		1.43		
SD btwn Labs			1.78	SD btwn Labs		1.31		
Labs Incl			43	Labs Incl		41		

Key to Instrument Codes Reported by Participants

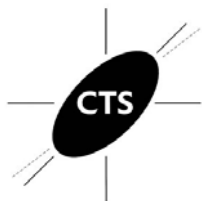
AK	L & W Autoline 300	AL	L & W Autoline 400
GA	Gurley Precision #4340 Automatic Densometer	GG	Gurley Precision #4320 Densometer
LA	L&W Autoline (237 Enrollment)	LP	L&W Air Permeance Tester SE 166
TD	TMI Gurley Densometer	TP	Technidyne Profile/ plus Roughness & Porosity
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 240
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM13
TAPPI Official Test Method T809

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
29YRJ9	57.6	56.6	57.1	57.6	57.2	-0.21	3.5	0.5	57.2	-0.21	3.5	1.1	16	LD
2BHXQJ	57.0	55.7 H	57.3	58.0	57.0	-0.28	4.3	1.0	55.2	-0.98	4.6	3.5	16	MB
2UE4JJ	63.5	56.9	58.7	57.9	59.2	0.61	3.6	2.9	59.6	0.73	4.1	1.8	16	LZ
48WT7E	59.4	60.4	59.9	60.8	60.1	0.97	3.4	0.6	57.0	-0.28	3.9	2.4	16	LD
4B2CJE	59.5	57.0	58.9	59.8	58.8	0.43	4.0	1.3	58.6	0.33	3.5	1.2	16	LZ
6QM4UD	58.4 L	58.3 L	58.3 L	58.3 L	58.3	0.24	0.7	0.1 L	58.0	0.12	2.4	0.7	16	LD
6QNAYE	58.7	55.2	59.3	59.1	58.1	0.15	2.6	1.9	59.5	0.72	3.0	1.8	16	LC
73VEN8	58.0	57.1	61.0	57.4	58.4	0.28	3.4	1.8	58.5	0.32	3.6	1.4	16	XX
7EPVD9	57.7	56.5	56.6	59.7	57.6	-0.03	3.1	1.5	57.5	-0.08	2.8	1.4	16	LD
7U47ZA	57.9 L	57.9 L	57.7 L	57.8 L	57.9	0.05	0.4	0.1 L	57.6	-0.06	0.5	0.3 L	16	TU
8B3H9B	61.9 L	60.8 L	59.0 L	59.4 L	60.3	1.04	0.8	1.3	60.9	1.25	0.8	1.4	16	XX
8YCMD6	62.8	61.6	58.1	61.9	61.1	1.37	3.6	2.1	58.8	0.44	4.0	2.0	16	LZ
9T263G	40.4 XH	45.2 X	47.2 X	45.8 X	44.6	-5.33 X	3.6	3.0	46.0	-4.64 X	3.8	5.0 H	16	TH
APZ8J2	58.8	No DATA	63.1	No DATA	61.0	1.32	3.5	3.0	59.6	0.74	4.3	2.4	4	LC
BW9AT8	54.4	61.7	58.7	60.4	58.8	0.44	3.4	3.2	58.5	0.29	4.1	2.0	16	EN
C2ZYN6	57.4	54.7	56.2	56.1	56.1	-0.67	2.8	1.1	55.7	-0.78	2.8	0.9	16	EM
CUYJ44	56.9	61.9	56.8	56.9	58.1	0.16	2.9	2.5	57.8	0.02	3.8	1.6	16	LD
DKRA2W	61.2	61.2	62.3	61.3	61.5	1.55	2.6	0.5	61.7	1.58	2.6	0.6 L	16	LC
FCWUPX	52.5	54.1	55.3	52.9	53.7	-1.64	4.0	1.3	54.2	-1.40	4.1	1.2	12	LD
GWA2EV	59.5	58.6	58.6	60.4	59.3	0.63	3.6	0.9	61.0	1.29	4.2	2.2	16	LD
GZT8L6	56.7	56.3	56.6	56.9	56.7	-0.43	3.8	0.2 L	57.0	-0.30	3.9	1.1	16	TX
HB7UAW	55.2	56.8	57.8	60.4	57.5	-0.07	3.3	2.2	59.1	0.57	3.6	2.3	8	XX
HKW2H3	60.7	60.5	61.6	59.5	60.6	1.16	4.1	0.8	59.2	0.58	4.5	1.6	16	LD
HPA2EU	60.6 L	61.1	61.0	61.2	61.0	1.33	1.8	0.2 L	62.0	1.69	2.3	1.1	16	TB
HUMN9Y	56.4 L	57.4	56.8 L	56.5	56.8	-0.39	1.6	0.4	57.7	-0.03	1.7	0.8	12	MB
J3AEXX	51.7	52.5 *	51.8 *	53.4	52.3	-2.19 *	3.2	0.8	54.4	-1.32	3.4	1.6	16	LD
JT2J46	55.4	55.0 L	54.7 L	56.2	55.3	-0.97	1.5	0.6	55.3	-0.94	1.5	1.0	16	XX
KP2VZ3	55.2	57.1	55.7	55.0	55.8	-0.80	3.6	1.0	54.9	-1.13	4.1	1.4	16	LD
KUR6A2	58.2	57.4	55.7	60.3	57.9	0.07	3.6	1.9	56.0	-0.68	3.3	1.8	16	LD
L99DQY	53.5	55.3	55.2	52.5	54.1	-1.47	4.0	1.3	54.8	-1.16	3.8	1.9	8	LD
L9A9FW	54.7	54.9	54.1 H	54.1	54.4	-1.34	4.5	0.4	54.5	-1.28	3.7	1.2	15	LD
LDL9GU	62.2 H	58.0	62.6 H	61.6	61.1	1.38	5.3	2.1	59.2	0.57	4.2	2.3	16	LD
NMLJZN	55.8	53.2	55.1	52.9	54.3	-1.41	3.5	1.4	53.8	-1.55	3.2	1.3	16	LD
PELJ2M	52.9	53.5	54.0	54.3	53.7	-1.65	2.0	0.6	54.1	-1.43	3.6	1.2	16	LD
PEP3NP	59.1	58.5	59.1	57.6 H	58.6	0.34	4.4	0.7	57.3	-0.18	4.9	1.5	16	LZ



Containerboard Interlaboratory Testing Program
Analysis 240
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM13
 TAPPI Official Test Method T809

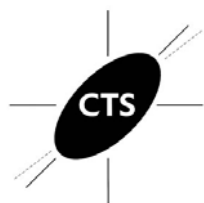
Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
RG4BZU	54.7	60.8	52.5	59.9	57.0	-0.31	3.5	4.0 H	58.7	0.40	3.5	2.9	16	TX
RNLPTR	57.3	60.0	63.4	58.2	59.7	0.82	4.0	2.7	61.8	1.61	4.4	3.3	16	TU
RRL2PR	66.2 *H	70.1 X	63.9 *H	68.1 X	67.1	3.82 X	5.3	2.6	63.3	2.22 * 4.9	4.7 H	16	LD	
RVN2PN	60.3	56.8	60.0	58.5	58.9	0.47	3.8	1.6	59.0	0.49	3.7	1.4	16	LD
UADN9L	60.1	58.8	56.9 H	58.0	58.5	0.30	6.5	1.4	58.4	0.27	4.9	1.4	16	EN
UQ3W7J	36.3 XH	No DATA	No DATA	56.3	46.3	-4.66 X	6.7	14.2	54.4	-1.31	5.1	10.3 H	5	LD
VYRV8P	59.3	58.4	59.5	56.3	58.4	0.27	4.3	1.4	58.1	0.16	4.1	1.7	12	XX
WFRHRM	63.3	59.4	60.8	59.1	60.7	1.20	3.7	1.9	59.6	0.73	3.2	1.6	16	LD
WPKL7H	67.1 *	68.3 X	68.8 X	69.1 X	68.3	4.32 X	2.4	0.9	66.1	3.30 X	2.4	3.5	12	LD
WQTQQT	51.5	52.1 *	51.5 *	51.7 *	51.7	-2.45 *	3.2	0.3 L	51.4	-2.52 *	3.9	0.7	16	LD
XFP7UJ	56.0	55.7	56.9	53.9	55.6	-0.85	3.5	1.3	55.6	-0.85	3.7	1.3	16	LD
XHTQRQ	60.3	59.2 L	60.9	59.3	59.9	0.89	3.1	0.8	59.7	0.79	3.7	1.2	16	LD
Z3YTVE	59.8	61.2 H	58.4	56.1	58.9	0.46	4.2	2.2	59.8	0.83	3.7	1.8	16	LD
Z9MHBH	55.5	60.0	55.0	52.9 H	55.9	-0.76	3.6	3.0	57.0	-0.28	5.5	2.1	16	LC

					Consensus (All Labs) Results			
Wk Mean	58.14	57.63	57.92	57.52	Month Mean	57.72	Grand Mean	57.72
Avg SDr	3.68	3.22	3.74	3.56	Avg SD	3.52	Avg SD	3.73
SD btwn Labs	3.47	2.64	2.99	2.75	SD btwn Labs	2.45	SD btwn Labs	2.52
Labs Incl	47	44	46	45	SD btwn Wks	1.68	SD btwn Wks	2.35
Labs Excl	2	3	2	3	Labs Incl	45	Labs Incl	47
Labs not Rcvd	0	2	1	1				

Key to Instrument Codes Reported by Participants

EM	Emerson 1200 Series	EN	Emerson 2200 Series
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
TB	TMI Monitor/Compression Tester, 17-70	TH	TMI Compression Tester, Model 17-76
TU	TMI Universal Crush Tester (TMI K440)	TX	TMI Crush Tester (model not specified)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program

Analysis 250

Report #673

October 2025

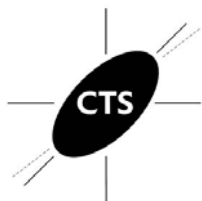
Fluted Edge Crush Strength (CFC), 26 lb Corrugating Medium - CM13

TAPPI Official Test Method T843

	Weekly Means				Monthly Results				Cumulative Results					
WebCode	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
29YRJ9	70.4	70.4	68.8	68.3	69.5	0.69	2.9	1.1	69.5	0.76	3.7	1.0	16	LD
4B2CJE	64.3	67.5	67.5	67.3	66.7	-0.08	2.7	1.6	65.7	-0.12	2.8	1.5	16	LZ
73VEN8	68.3	66.0	68.7	71.8	68.7	0.48	3.3	2.4	69.4	0.75	3.6	1.5	16	XX
7EPVD9	69.5	71.5	71.7	71.9	71.1	1.14	2.2	1.1	70.2	0.92	2.8	1.3	16	LD
8B3H9B	69.4 L	69.0 L	70.2 L	70.7 L	69.8	0.78	0.7	0.7	71.1	1.14	0.9	1.4	16	XX
APZ8J2	73.8 * No DATA		72.0 No DATA		72.9	1.62	3.2	1.3	72.3	1.41	4.0	1.9	4	LC
BW9AT8	70.4	67.5	65.3	64.4	66.9	-0.01	2.7	2.7	66.4	0.04	2.5	2.2	16	LC
HKW2H3	64.3	65.7	64.7	65.4	65.0	-0.52	2.8	0.7	65.9	-0.08	3.7	1.2	16	LD
HUMN9Y	65.4	65.5	65.8	65.6	65.6	-0.37	1.7	0.2 L	66.3	0.01	1.7	1.0	12	MB
JT2J46	62.3 L	62.4	62.5 L	62.6 L	62.5	-1.22	1.3	0.1 L	62.5	-0.88	1.4	0.7	16	XX
KP2VZ3	65.6	67.2 H	69.0	69.6	67.9	0.25	4.7	1.8	65.8	-0.10	3.9	2.6	16	XX
KUR6A2	63.9 H	66.1	68.9	66.1	66.2	-0.19	4.7	2.0	67.4	0.26	4.2	1.9	16	LD
L9A9FW	69.2	65.8	69.6	68.5	68.3	0.36	3.5	1.7	68.8	0.59	3.8	1.2	15	LD
NMLJZN	68.7	66.5	68.6	67.1	67.7	0.20	4.0	1.1	67.7	0.33	3.6	1.6	16	LD
PEP3NP	64.7	63.6	61.6	63.2	63.3	-1.00	3.5	1.3	62.2	-0.94	4.3	1.8	16	LZ
RVN2PN	69.0	67.2 H	66.8	68.9 H	68.0	0.28	5.0	1.1	67.1	0.19	4.8	1.5	16	LD
WPKL7H	70.8	70.4	70.5	70.6	70.6	0.99	2.0	0.2 L	69.3	0.71	2.4	2.8	12	LD
WQTQQT	50.6 XH	50.8 XH	50.2 XH	50.2 XH	50.5	-4.48 X	7.2	0.3	55.6	-2.50 *	4.9	3.2	16	LD
XEE48K	59.7 *	57.6 *	58.2 *	57.5 *	58.3	-2.36 *	3.2	1.0	58.3	-1.87	3.2	1.0	4	XX
XHTQRQ	61.3	59.1 *	60.1 H	56.6 *	59.3	-2.09 *	5.1	2.0	59.3	-1.64	4.5	1.2	16	XX
Z3YTVE	66.0	69.5	69.0	72.8	69.3	0.64	3.2	2.8	68.5	0.53	3.4	2.5	16	LD
Z9MHBH	67.8	66.2	68.4	71.4	68.5	0.41	2.8	2.2	68.4	0.50	2.9	2.3	16	LC
Consensus (All Labs) Results														
Wk Mean	66.90	66.23	67.04	67.01	Month Mean		66.94		Grand Mean		66.26			
Avg SDr	3.44	3.04	3.50	3.26	Avg SD		3.31		Avg SD		3.48			
SD btwn Labs	3.54	3.51	3.75	4.50	SD btwn Labs		3.67		SD btwn Labs		4.26			
Labs Incl	21	20	21	20	SD btwn Wks		1.58		SD btwn Wks		1.82			
Labs Excl	1	1	1	1	Labs Incl		21		Labs Incl		22			
Labs not Rcvd	0	1	0	1										

Key to Instrument Codes Reported by Participants

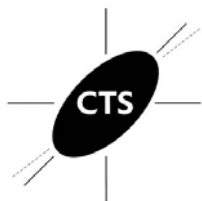
LC	L&W Crush Tester 48	LD	L&W Crush Tester 248
LZ	L&W Crush Tester (model not specified)	MB	Messmer Buchel K440
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
Analysis 255
Ring Crush (RCT), 26 lb Corrugating Medium - CM13
 TAPPI Official Test Method T822

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
29YRJ9	41.4	40.7	42.1	40.8	41.3	-0.57	2.6	0.6	41.8	-0.05	2.6	1.1	16	LD
2BHXQJ	43.3	41.2	42.7	42.9	42.5	0.65	4.5	0.9	42.6	0.59	4.2	2.3	16	MB
2JWJYM	44.3	45.0	39.5	43.2 H	43.0	1.09	3.7	2.4	42.4	0.40	3.2	2.0	12	LD
2UE4JJ	41.2	40.4	41.2	38.8	40.4	-1.37	3.6	1.1	41.1	-0.53	3.3	1.1	16	LD
346WEF	43.3	40.1	42.1	42.4	42.0	0.10	2.6	1.4	42.8	0.69	2.6	2.2	16	TH
48WT7E	41.9	40.2	43.8	43.0	42.2	0.36	3.2	1.6	41.1	-0.54	3.0	1.7	16	LD
6QM4UD	43.4 L	43.5 L	43.4 L	43.4 L	43.4	1.46	0.5	0.1 L	43.4	1.17	0.5	0.1 L	16	LD
73VEN8	44.1	40.9	39.3	42.2	41.6	-0.23	3.9	2.0	41.8	0.01	3.6	1.3	16	XX
7EPVD9	42.4	38.6	39.2	42.5	40.7	-1.13	2.5	2.1	41.2	-0.43	2.2	1.2	16	LD
7U47ZA	41.1 L	41.1 L	41.2 L	41.2 L	41.1	-0.67	0.6	0.1 L	41.1	-0.54	0.6	0.1 L	16	TU
CUYJ44	41.9	37.6	43.3	41.7	41.1	-0.68	3.5	2.5	39.9	-1.37	3.2	1.8	16	LD
DKRA2W	41.8	42.4	42.7	41.4 L	42.1	0.20	1.9	0.6	41.9	0.05	1.8	0.9	16	XX
FCWUPX	43.3	42.7	46.2	43.8	44.0	2.02 *	2.5	1.6	43.5	1.21	2.4	1.0	12	LC
HB7UAW	43.4	41.1	41.5	42.3 L	42.1	0.21	2.1	1.0	41.2	-0.48	2.7	2.3	8	XX
HPA2EU	41.0 L	40.9	40.8	42.0	41.2	-0.65	1.8	0.6	41.9	0.03	2.0	1.1	16	XX
HUMN9Y	40.7	41.0	41.0	40.5	40.8	-0.98	1.7	0.3 L	40.8	-0.72	2.1	0.6	12	MB
JT2J46	41.5 L	41.9	41.7 L	41.1 L	41.5	-0.30	1.1	0.3	43.3	1.08	1.4	1.9	16	MZ
KP2VZ3	41.4	43.3	45.1	47.1	44.2	2.25 *	3.4	2.4	41.4	-0.32	3.6	2.8	16	LD
L99DQY	42.5	42.9	41.6	42.4	42.3	0.46	3.1	0.5	43.7	1.34	3.1	2.1	8	EM
L9A9FW	43.5	42.5	42.4	42.5	42.7	0.82	4.0	0.5	42.4	0.39	3.6	0.9	15	LD
LDL9GU	41.8	41.9	40.1	40.5	41.1	-0.74	4.5	0.9	41.2	-0.46	3.8	2.2	16	LD
NMLJZN	40.8	43.7	42.8	44.8	43.0	1.10	2.5	1.7	43.8	1.45	3.1	1.8	16	LD
PELJ2M	46.8 *	43.4	45.1	48.0 *	45.8	3.78 X	3.2	2.0	44.9	2.24 *	2.7	1.5	16	LD
RG4BZU	40.7	43.4	41.0	39.4	41.1	-0.68	3.7	1.7	40.6	-0.88	3.0	1.9	16	LZ
RRL2PR	42.7	40.1	47.6 *	34.3 *H	41.2	-0.64	4.9	5.5 H	41.2	-0.47	4.7	4.5 H	16	LC
T8CCMU	38.5	36.3 *	36.3 *	33.8 *	36.3	-5.31 X	3.7	1.9	40.2	-1.15	4.6	3.4	16	XX
VYRV8P	37.1 *	37.4 *	38.2	36.4	37.3	-4.35 X	4.2	0.7	38.3	-2.59 *	4.1	1.6	12	XX
WFRHRM	42.2	41.6	42.9	41.9	42.1	0.27	2.8	0.5	42.7	0.67	3.0	1.3	16	LD
Z3YTVE	40.1	39.7	39.9	40.4	40.0	-1.74	2.4	0.3	40.2	-1.16	2.9	1.4	16	LD
Z9MHBH	39.3	41.9	41.0	42.5	41.2	-0.63	3.1	1.4	42.3	0.35	3.1	1.3	16	LC



Containerboard Interlaboratory Testing Program
 Analysis 255
Ring Crush (RCT), 26 lb Corrugating Medium - CM13
 TAPPI Official Test Method T822

Report #673
October 2025

					Consensus (All Labs) Results			
Wk Mean	41.91	41.24	41.86	41.58	Month Mean	41.85	Grand Mean	41.82
Avg SDr	3.29	3.03	3.05	3.14	Avg SD	3.05	Avg SD	3.05
SD btwn Labs	1.87	1.99	2.34	2.98	SD btwn Labs	1.06	SD btwn Labs	1.37
Labs Incl	30	30	30	30	SD btwn Wks	1.70	SD btwn Wks	1.87
Labs Excl	0	0	0	0	Labs Incl	27	Labs Incl	30
Labs not Rcvd	0	0	0	0				

Key to Instrument Codes Reported by Participants

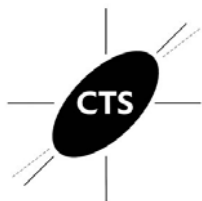
EM	Emerson 1200 Series	LC	L&W Crush Tester 48
LD	L&W Crush Tester 248	LZ	L&W Crush Tester (model not specified)
MB	Messmer Buchel K440	MZ	Messmer Buchel (model not specified)
TH	TMI Compression Tester, Model 17-76	TU	TMI Universal Crush Tester (TMI K440)
XX	Instrument make/model not specified by lab		



Containerboard Interlaboratory Testing Program
 Analysis 261
STFI, 26 lb Corrugating Medium - CM13
 TAPPI Official Test Method T826

Report #673
October 2025

WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SD	SD Wks	Mean	CPV	SD	SD Wks	Wks	Inst
2BHXQJ	14.8	14.5	14.4	14.5	14.6	1.56	1.4	0.2	14.0	0.78	1.3	0.7	16	LA
2JWJYM	13.6	14.4	14.6	14.8	14.4	1.19	1.0	0.5	14.4	1.56	1.1	0.6	12	LH
2UE4JJ	13.2	12.5	13.1	12.4	12.8	-1.46	1.1	0.4	13.1	-0.98	1.0	0.4	16	LB
6QNAYE	13.8	13.8	13.3	13.9	13.7	0.08	1.2	0.3	13.8	0.36	1.1	0.4	16	LA
7U47ZA	13.7	13.6	13.5	13.6	13.6	-0.09	1.1	0.1 L	13.7	0.11	1.0	0.3	16	XX
8B3H9B	12.8	13.2	13.5 L	13.0	13.1	-0.87	1.1	0.3	12.9	-1.42	1.0	0.8	16	XX
9T263G	13.3 L	13.4	13.1	14.5 H	13.6	-0.15	1.2	0.7	17.8	7.98 X	1.2	4.8 H	16	TS
AYKPM9	13.8	13.0	13.7 L	13.4	13.5	-0.31	1.1	0.3	13.4	-0.38	1.2	0.6	12	XX
C2ZYN6	13.5	13.8	14.4	13.7	13.9	0.34	1.1	0.4	14.1	0.96	1.1	0.4	16	LH
CUYJ44	12.9	12.8	12.4 L	13.3	12.8	-1.45	0.8	0.4	13.0	-1.11	0.9	0.5	16	LH
FCWUPX	14.1	14.1	14.1	13.8	14.0	0.62	1.1	0.2	14.0	0.78	1.1	0.2 L	4	LH
GZT8L6	13.1	13.4	13.4	13.3	13.3	-0.64	1.2	0.1	13.2	-0.74	1.2	0.4	16	TX
JT2J46	13.2 L	13.3 L	12.4 L	11.9 *L	12.7	-1.62	0.4	0.6	13.3	-0.65	0.4	0.5	16	LZ
KP2VZ3	12.5	13.5	13.8	14.3	13.5	-0.21	1.0	0.8	12.7	-1.70	1.1	0.8	16	LZ
KUR6A2	14.7	14.2	13.6 H	13.7	14.1	0.68	2.0	0.5	14.1	0.89	1.4	0.4	16	LA
L9A9FW	13.1	13.4	13.5	13.0	13.2	-0.70	1.1	0.3	13.3	-0.50	1.1	0.3	15	LB
LDL9GU	26.0 XH	23.6 XH	24.3 X	23.8 X	24.4	18.45 X	1.5	1.1 H	16.2	5.03 X	1.2	4.9 H	16	LH
MKFR73	13.7 H	13.2	11.6 *H	13.6 L	13.0	-1.06	2.3	1.0	13.4	-0.33	1.6	0.9	16	LA
MTCKEW	13.9	14.0	13.8	11.6 *	13.3	-0.55	1.1	1.1 H	13.6	-0.06	1.1	0.7	16	LU
NMLJZN	14.2	13.7	13.9	14.1	14.0	0.58	1.1	0.2	13.9	0.55	0.9	0.4	16	LA
RG4BZU	15.0 *	14.0 L	15.1	13.5	14.4	1.28	1.3	0.8	13.5	-0.26	1.4	1.0	16	XX
RNLPTR	14.4	14.9 *	15.5 *	15.1	15.0	2.27 *	1.2	0.5	14.6	1.87	1.1	0.5	16	LA
RRL2PR	11.7 X	11.8 *	10.3 X	11.1 X	11.2	-4.13 X	1.1	0.7	12.7	-1.81	1.4	2.0 H	14	LH
UQ3W7J	No DATA	No DATA	No DATA	13.1 L	13.1	-0.95	0.6	0.0	13.1	-1.06	0.8	0.1 L	4	LH
VYRV8P	13.6	12.8	13.6	14.7	13.7	0.05	1.2	0.8	13.7	0.22	1.3	0.5	12	XX
W3LCWN	14.6	15.8 XH	14.6	14.3 H	14.8	1.97 *	1.5	0.6	14.6	1.90	1.5	0.6	16	LA
WFRHRM	14.1	14.4	13.8 L	14.2	14.1	0.81	0.9	0.3	14.2	1.21	1.1	0.5	16	XX
WPKL7H	12.9 L	13.2	12.7 L	13.4	13.1	-1.01	0.7	0.3	13.6	-0.08	0.8	0.5	12	LA
WQTQQT	13.8	13.9	13.7	13.7 H	13.8	0.18	1.4	0.1	13.2	-0.82	1.5	0.4	16	LB
XHTQRQ	13.8 L	13.5 L	13.4 L	14.4 L	13.8	0.18	0.0	0.4	14.0	0.76	1.0	0.4	16	LH
Z9MHBH	13.8	12.9	13.1	13.2	13.2	-0.70	1.1	0.4	13.4	-0.39	1.0	0.3	16	LU
ZFNTLG	13.0	13.6	14.2	13.7	13.6	-0.04	1.0	0.5	13.8	0.34	1.1	0.4	16	LA



Containerboard Interlaboratory Testing Program

Analysis 261

STFI, 26 lb Corrugating Medium - CM13

TAPPI Official Test Method T826

Report #673

October 2025

Consensus (All Labs) Results								
Wk Mean	13.68	13.55	13.64	13.66	Month Mean	13.65	Grand Mean	13.61
Avg SDr	1.13	1.12	1.46	1.06	Avg SD	1.20	Avg SD	1.14
SD btwn Labs	0.63	0.66	0.82	0.80	SD btwn Labs	0.58	SD btwn Labs	0.52
Labs Incl	29	29	29	30	SD btwn Wks	0.52	SD btwn Wks	0.65
Labs Excl	2	2	2	2	Labs Incl	30	Labs Incl	30
Labs not Rcvd	1	1	1	0				

Key to Instrument Codes Reported by Participants

LA	L&W Autoline	LB	L&W Model 152
LH	L&W 282	LU	L&W 52 without moisture correction (was 53)
LZ	L&W (model not specified)	TS	TMI Monitor/STFI Compression Tester, 17-33
TX	TMI (model not specified)	XX	Instrument make/model not specified by lab

End of Report