



CONSUMER PRODUCTS SERVICES DIVISION

## FOREST ELEMENTS LLC

**Technical Report:** (5119)239-0212 Revision  
Date Received: September 20, 2019

October 29, 2019  
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SHAWN MILLER

FOREST ELEMENTS LLC  
14700 W.99TH ST  
LENEXA, KS 66215  
UNITED STATES

# PASS

Sample Description:	NATURAL WOOD MOSAIC TILE		
	1.) NATURAL WOOD COLOR		
Manufacturer:	FOREST ELEMENTS LLC	PO No.:	100221
Buyer:	N/A	Style:	10-332
Country of Origin:	UNITED STATES	Country of Destination:	UNITED STATES
SKU No.:	10-332	Protocol No.:	N/A
Item #:	N/A	UPC Code:	N/A
Previous Report No.:	/	Lot #:	1

### EXECUTIVE SUMMARY:

The submitted sample(s) were evaluated to the requested applicable sections of protocol **CPSD-4001-US**.

The sample(s) received a **PASS** rating.

**NOTE:** Partial testing was performed at a Bureau Veritas CPS approved subcontract lab.

BVCPS Buffalo Contact Information for this Report:

Administrative Questions:	Christine Kinney	Phone: 716-505-3449	<a href="mailto:christine.kinney@us.bureauveritas.com">christine.kinney@us.bureauveritas.com</a>
Technical Questions:	Cheryl Hoage	Phone: 716-505-3335	<a href="mailto:cheryl.hoage@us.bureauveritas.com">cheryl.hoage@us.bureauveritas.com</a>

Bureau Veritas  
Consumer Products Services, Inc.

Cheryl Hoage  
Product Test Analyst,  
Hardlines Department

/CW

cc: GAVIN TAN, FOREST ELEMENTS LLC



**PHthalates Content in Children's Toys and Childcare Articles (Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(a) Prohibition On Sale of Certain Products Containing Specified Phthalates - BBP / DBP / DEHP / DIBP / DINP / DNHP / DNPP / DCHP Content)**  
**Effective: April 25, 2018**

**Test Method:** With reference to U. S. CPSC-CH-C1001-09.3 (April 1, 2010).

Color / Component	Location	Style
A. Yellow translucent adhesive with fabric	Glue with lattice	-

Analyte	BBP	DBP	DIBP	DCHP	DNPP	DNHP	DEHP	DINP	
Limit (%)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Sample	Result (%)								Conclusion
A	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	Data

**Detection Limit :**

- DIBP* = Di-iso-butyl phthalate (0.005%)
- DINP* = Di-iso-nonyl phthalate (0.005%)
- DCHP* = Dicyclohexyl phthalate (0.005%)
- BBP* = Butyl benzyl phthalate (0.005%)
- DBP* = Dibutyl phthalate (0.005%)
- DEHP* = Di(2-ethylhexyl) phthalate (0.005%)
- DNPP* = Di-n-pentyl phthalate (0.005%)
- DnHP* = Di-n-hexyl phthalate (0.005%)

**Results reported in percentage**

- LT* = Less than
- ND* = None detected



**BUREAU VERITAS TEST PROTOCOL FOR**  
**CPSD-4001-US**  
**WOOD PRODUCT V11)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
<b>SUPPLEMENTAL PROTOCOLS</b>					
*.** California Proposition 65	CPSD-AN-PTCL-06572-USA	All	The sample should be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.  For samples that fall under the scope of CA Prop 65 requirements with testing limit(s) but does not contain appropriate labeling (refer to image appendix for detail), actual testing will be conducted. Otherwise, actual testing is not required and report as "Pass" if the sample contains appropriate labeling.	NA	-
* Non-CPSIA Requirements	CPSD-GB-PTCL-08443-US		All samples shall be reviewed against the requirements of Non-CPSIA Requirements supplemental protocol to determine if additional testing or labeling is required.	SEE CPSD-GB-PTCL-08443- US	-
Note: Additional cost, sample size & TAT may be required if testing to 1 or more supplemental protocol is necessary. Please refer to the above referenced supplemental protocol(s) for additional information.					
<b>LABELING</b>					
One Time Use Products **Fair Packaging and Labeling Act OR All Other Products **Uniform Packaging and Labeling Regulations	F.P. & L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	1	Manufacturer, Packer, or Distributor's Name & Address (City, State & ZIP Code)	M	PASS
			Product Identification	M	PASS
			Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison (U.S. and metric units).	M	PASS



**CPSD-4001-US  
 WOOD PRODUCT V11)**

<b>Evaluation</b>	<b>Citation/Method</b>	<b>No. Samples</b>	<b>Criteria</b>	<b>Results</b>	<b>Rating</b>
**Country of Origin Marking	19 CFR 134	1	Shall indicate country of origin legibly, permanently, and in comparable size and close proximity to any mention of country other than country in which the article was manufactured or produced. Must be visible at point of purchase.	M R: Made in USA	PASS
Use Labeling	CPSD-HL-01057-MTHD	1	Use/care instructions that are clear and understandable shall be provided in English.	M	PASS
*Claim verification - level 3	CPSD-GB-08612-MTHD	All	Examine the retail packaging (or submitted artwork) and labeling/ marking on product at point of purchase. Objective (factual) claim within the protocols: Rate accordingly. Any objective or testable claim not approved by the client: Report "NT" and rate as "DATA". Additional testing without capability: Report: "NT" and rated as "FAIL". Subjective claims (not qualitative and non-measurable/non-testable): Report "NT" and rate as "DATA". Record information evaluated between the graphic imagery and the product Record disclaimers on datasheet.	NT	-
<b>PHYSICAL CHARACTERISTICS</b>					



**CPSD-4001-US  
 WOOD PRODUCT V11)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Dimensions	CPSD-HL-01056-MTHD	1	Report overall dimensions; shall meet label claims (If applicable) (-0% / +5%).	<p style="text-align: center;">M C:</p> <p style="text-align: center;">Tiles Total Coverage Area- 10.3 sp.ft / 0.96 m<sup>2</sup></p> <p style="text-align: center;">Actual Dimension- 12.6 in x 11.8 in x 0.39 in 319 mm x 300 mm x 10 mm</p> <p style="text-align: center;">Actual Coverage- 1.03 sp.ft / 0.096 m<sup>2</sup></p> <p style="text-align: center;">R:</p> <p style="text-align: center;">Tiles Total Coverage Area- 10.4 ft<sup>2</sup></p> <p style="text-align: center;">Actual Dimension- 12.625 in L x 11.875 in W x 0.3970</p> <p style="text-align: center;">Actual Coverage- 1.04 ft<sup>2</sup></p>	PASS
Weight	CPSD-HL-01056-MTHD	1	Report overall weight; shall meet label claims (If applicable) (-0% / +5%).	<p style="text-align: center;">No claim R:</p> <p style="text-align: center;">Whole package- 9.492 lbs.</p> <p style="text-align: center;">Single Tile- 0.876 lbs.</p>	DATA
Parts Inventory	CPSD-HL-01057-MTHD	1	Shall meet label claims.	<p style="text-align: center;">M C: 10 pcs. R: 10 pcs.</p>	PASS
<b>CONSTRUCTION &amp; WORKMANSHIP</b>					



**CPSD-4001-US  
 WOOD PRODUCT V11)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Sharp Points/Edges	16 CFR 1500.48/1500.49 (Mod.)	All	Shall have no sharp points/edges, other than those required for function. Modification = Expanded scope to other products	M	PASS
Workmanship	CPSD-HL-01057-MTHD	All	Shall have no components missing, malformed, and/or fractured.	M	PASS
<b>PERFORMANCE</b>					
Functionality (Not already covered by other tests)	CPSD-HL-01058-MTHD	All	Shall function as intended as received. Report details of evaluation (features tested / methods used / materials used / etc.) Report any features not evaluated.	M R: Functions as intended. No additional evaluation required.	PASS
Adhesive Properties (If Applicable)	CPSD-HL-01058-MTHD	1	Shall adhere to floor when applied as instructed	M	PASS
Cutting Test (If Applicable)	CPSD-HL-01058-MTHD	1	Shall be easy to cut per the instructions	M	PASS
Marking Resistance	CPSD-HL-01058-MTHD	1	Sample surface shall not be damaged or excessively marked, scratched, or scuffed when rubbed by 2 x 2 in. pieces of rubber and wood for two 6 in. strokes (back and forth) with a force of 35 lbs.	M	PASS
Impact Resistance	CPSD-HL-01058-MTHD	1	Sample shall not break or become dented when a 2 in. steel ball is dropped 3 time from a 3 ft. height	N/A – Wall Decor	-
Staining Resistance	CPSD-HL-01015-MTHD (Mod.)	1	Tile shall be covered with cooking oil, vinegar, wine, and tomato sauce and allowed to set for 2 hrs. There shall be no residual staining or discoloration of surface after removal of the food materials. Modification = 2 hours exposure	N/A – Natural Materials	-
Compression Strength Test	CPSD-HL-01058-MTHD	1	No breakage or reduction in thickness of a 1 sq. ft. sample when a 500 lbs load is applied for 1 min.	M	PASS
<b>COLORFATNESS</b>					



**CPSD-4001-US  
WOOD PRODUCT V11)**

<b>Evaluation</b>	<b>Citation/Method</b>	<b>No. Samples</b>	<b>Criteria</b>	<b>Results</b>	<b>Rating</b>
Light	AATCC 16.3	1	[Option 3] Class 4.0 (min.) at 40 hours	M	PASS
Colorfastness to rotary crocking	AATCC 116-10	1	Dry: Grade 4.0 Minimum Wet: Grade 3.0 Minimum	M	PASS



Key:

\* Additional Charge For This Test  
\*\* Mandatory Requirement  
# By Request Only

Result Key:

C Claimed  
R Recorded  
M Meets  
NM Does Not Meet  
NA Not Applicable  
NT Not Tested

Rating Key:

PASS Pass  
FAIL Fail  
NR Not Requested

No. Of Samples Required For Complete Testing:	3
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Creation Date: May 28, 2007  
Editorial Revision Date: JUNE 24, 2019  
Pricing Review Date: July 6, 2007  
Technical Review Date:





<b>Protocol Number</b>	CPSD-AN-08443-USA-3 STAR		<b>Version</b>	11
<b>Protocol Description</b>	NON-CPSIA REQUIREMENTS SUPPLEMENT			
<b>Country</b>	United States			
<b>Scope</b>	This protocol applies to all products Except toys, children products and child care article as defined by CPSIA, all furniture including adult furniture, and household paint.			
<b>Creation Date</b>	20/Oct/2009	<b>Last Revision Date</b>	17/Jul/2019	
<b>Client Approval Date</b>		<b>Approver</b>		
<b>No of Sample</b>	6			
<b>No of Working Days</b>	7			

Keys					
A	Additional Charge For This Test	M	Mandatory	R	Regulatory

	Evaluation	Citation / Method	Criteria	1 Star	2 Star	3 Star	Result	Rating
<b>ANALYTICAL</b>								
A	Total lead in surface coating	CPSC-CH-E1003-09.1 / CPSD-AN-00001-MTHD	<p>All accessible surface coatings in the as received state on items outside of the scope of 16 CFR 1303 shall not contain lead or lead components in which the lead content is in excess of 0.009% (90 ppm) of the weight of the total content.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>- Report actual results or include data table within report.</li> <li>- Component testing is allowed.</li> <li>- Based on CPSC SOP, will composite up to 3 colors. If any color in the composite exceeds 80% of the limit (72 ppm), based on the lowest weight component, individual colors will be analyzed.</li> <li>- Non-suspect materials as defined by the Consumer Products Safety Commission under 16 CFR 1500.88 and 16 CFR 1500.91 (d) and (e) will not be tested. It is the vendor's responsibility to ensure compliance to the applicable requirements.</li> </ul> <p>Client requirement</p>		X	X	NA	-



<b>Protocol Number</b>	CPSD-AN-08444-USA		<b>Version</b>	32
<b>Protocol Description</b>	CPSIA REQUIREMENTS SUPPLEMENT			
<b>Country</b>	United States			
<b>Scope</b>	This protocol applies to toys, children products and child care article as defined by CPSIA, all furniture, including adult furniture, and household paint.			
<b>Creation Date</b>	29/Apr/2014	<b>Last Revision Date</b>	15/Aug/2018	
<b>Client Approval Date</b>		<b>Approver</b>		
<b>No of Sample</b>	6			
<b>No of Working Days</b>	7			

Keys					
A	Additional Charge For This Test	M	Mandatory	R	Regulatory

	Evaluation	Citation / Method	Criteria	1 Star	2 Star	3 Star	Result	Rating
<b>ANALYTICAL</b>								
A R	Total lead in substrate	Consumer Product Safety Improvement Act of 2008 / 16 CFR 1252 / CPSC-CH-E1001-08.3 / CPSC-CH-E1002-08.3 / CPSD-AN-00185-MTHD / CPSD-AN-00196-MTHD	<p>All accessible substrates, before and after use and abuse testing, on items intended for children ages 12 and under shall not contain lead in excess of 0.01% (100ppm) of the weight of the total content.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>- In case of insufficient material for testing found on number of samples specified in the protocol, vendor needs to provide components/parts for testing.</li> <li>- Report actual results or include data table within report.</li> <li>- Issue a third party test report.</li> <li>- Component testing is allowed.</li> <li>- Compositing up to 3 like materials is allowed except metal.</li> <li>- Exempt materials as defined by the Consumer Products Safety Commission in 16 CFR 1500.88, 16 CFR 1500.91 (d) and (e) and 16 CFR 1252 will not be tested.</li> <li>- Untreated and unfinished engineered wood products (EWPs), specifically, particleboard, hardwood plywood, and medium-density fiberboard, made from virgin wood or pre-consumer wood waste as defined in 16 CFR 1252 will not be tested.</li> </ul>	X	X	X	NA	-



	Evaluation	Citation / Method	Criteria	1 Star	2 Star	3 Star	Result	Rating
			Vendor shall claim this determination in TRF, otherwise testing will be conducted in all woods.					
A R	Phthalates content	16 CFR 1307 / 16 CFR 1252 / CPSC-CH-C1001-09.3 (Mod) / CPSC-CH-C1001-09.4 (Mod) / CPSD-AN-00143-MTHD	<p>Children's toys and childcare articles, before and after use and abuse testing, shall not contain concentrations of more than 0.1% BBP, DBP, DEHP, DINP, DIBP, DPENP(=DnPP), DHEXP(=DnHP) or DCHP individually.</p> <p>Actual testing would be conducted on all accessible plastics materials (including natural and synthetic rubber) (excluding materials listed below), plasticizer print, scrapable surface coatings, decals, polymeric coated materials (unscrapable), adhesives and sealants (exclude adhesive for stickers), polyvinyl acetate (PVAc) adhesive formulations used in hardwood plywood, toy nail polish, reusable packaging, electrical plug and cables.</p> <p>Polypropylene (PP), polyethylene (PE), acrylonitrile butadiene styrene (ABS), general purpose polystyrene (GPPS), medium-impact polystyrene (MIPS), high-impact polystyrene (HIPS), and super high-impact polystyrene (SHIPS), and their additives as listed in 16 CFR 1308 are exempt from testing, however, they are not exempt from compliance or certification.</p> <p>If material identification is not provided, phthalate testing will be conducted on all plastic materials. If adhesive formulation of hardwood plywood is not provided, phthalate testing will be conducted on all hardwood plywood.</p> <p>Vendor shall be responsible for the compliance of all other accessible materials, including additives in the exempt plastic materials.</p> <p>In case of insufficient material for testing found on number of samples specified in the protocol, vendor needs to provide components/parts for testing.</p> <p>Report actual results or include data table within report.</p> <p>Component testing is allowed.</p> <p>Compositing up to 3 like materials is allowed.</p> <p>Product manufactured and imported as of April 25, 2018 must comply.</p>	X	X	X	See data table	DATA

**IMPORTANT NOTE:** The information presented under the "Criteria" of this protocol is for information only and does not replace the content of the standard. Details of the requirements should be referred to the original standards.



**BUREAU VERITAS TEST PROTOCOL FOR**  
**CPSD-06012**  
**FOOD CONTAINERS - WOODEN ITEMS (V28)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
SUPPLEMENTAL PROTOCOL					
Humidity exposure	CPSD-HL-01007-MTHD	1	Shall have no visual changes, functionality failure, structural failure and /or permanent deformation after 4 hours @ 95% R.H. and 100 deg. F	M	PASS
Effects of extreme temperature change	CPSD-HL-01012-MTHD	1	Shall have no visual changes, functionality failure, structural failure and /or permanent deformation after 4 hours @ 0 deg. F and 120 deg. F.	M	PASS



Key:

\* Additional Charge For This Test  
\*\* Mandatory Requirement  
# By Request Only

Result Key:

C Claimed  
R Recorded  
M Meets  
NM Does Not Meet  
NA Not Applicable  
NT Not Tested

Rating Key:

PASS Pass  
FAIL Fail  
NR Not Requested

No. Of Samples Required For Complete Testing:	8
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Creation Date: MAY 3, 2006  
Editorial Revision Date: AUGUST 21, 2019  
Pricing Review Date: JULY 5, 2007  
Technical Review Date:



Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
<b>SUPPLEMENTAL PROTOCOL</b>					
TUNNEL TEST	ASTM E 84			See additional test results	-



FOREST ELEMENTS LLC  
Technical Report: **(5119)239-0212**  
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**EXHIBIT # 1**



Sample as received







**BUREAU**  
**VERITAS**

FOREST ELEMENTS LLC  
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SPECIMEN MOUNTING:

- Self-supporting: The test specimen was rigid enough to be self-supporting when placed into test position. No additional support was required.
- Adhered to IRC: The test specimen was bonded to 1/4" Inorganic Reinforced Cement (IRC) boards.
- Adhered to Gypsum: The test specimen was adhered to 5/8" thick Type X gypsum board.
- Unadhered: The specimen was not adhered to any substrate. Instead, it was laid over a 2" hexagonal wire mesh screen and 1/4" rods.
- Other: \_\_\_\_\_

SPECIMEN LENGTH: The 24 ft. length was comprised of:

- Continuous unbroken 24 ft. length
- Sections:  Three 8 ft. sections butted end to end  
 Three 8 ft. sections positively joined
- Other: \_\_\_\_\_

ADHESIVE (applied by SGS Govmark):  No  
 Yes - (specify): Roman-Pro 880

OBSERVATIONS:

- No unusual observations
- Burning Drips to Floor further qualified as:  Minor;  Moderate;  Major
- Delamination
- Sagging
- Shrinkage
- Fallout (specimen displacement from ceiling mount)
- Other: \_\_\_\_\_

REMARKS:  None  
 Other: \_\_\_\_\_



RESULTS:

Flame Spread Index: 105  
Smoke Developed: 350

ROUNDING (Per ASTM E84 Reporting Requirements):

Flame Spread Index value has been rounded to the nearest multiple of 5.  
Smoke Developed value has been rounded to:

Raw Data	Rounded
Less than 200	Nearest multiple of 5
200 or more	Nearest multiple of 50

CONCLUSION: Based on the reported Results and cited Code Classification System, the item tested is assigned a:

- Class I or A rating
- Class II or B rating
- Class III or C rating
- Fails to achieve a minimum classification thereby rendering the product unsuitable in terms of code requirement
- Based on product performance\*, ASTM E84 is not a suitable test method for the material.

\* Severe melt, drip, delamination or other behaviour that destroys the continuity of the flame front such that a valid flame spread is unobtainable (See "Remarks" on Page 2 of 4.)

DATA SUMMARY:

Time to Ignition (minutes:seconds): 00:42  
Maximum Flame Spread "Distance" (feet): 19.5  
Maximum Flame Spread "Time" (seconds): 351

CODE CLASSIFICATION SYSTEM (Please see "ASTM E84 Limitations" on Page 4):

	Flame Spread Index	Smoke Developed
Class I or A:	0 - 25	450 or less
Class II or B:	26 - 75	450 or less
Class III or C:	76 - 200	450 or less



BUILDING CODE CITATION FOR THE CLASSIFICATION SCHEME:

- (1) 2015 edition, NFPA 101 Life Safety Code, para. 10.2.3.4
- (2) 2015 edition, NFPA 5000 Building Construction & Safety Code, para. 10.4.2
- (3) 2018 edition, International Building Code, para. 803.1.2

LIMITATIONS OF THE ASTM E84 CLASSIFICATION SCHEME: Most building codes will accept the ASTM E84 classifications when the interior finish product is used in a sprinklered area. Certain local authorities such as NYC have more stringent requirements, i.e. Smoke Developed ranges from a maximum 25 to 100.

If the interior finish product is a textile or vinyl wall covering used in a non-sprinklered area, the NPPA 265 room corner fire test applies.

Certain products which give off excessive heat such as but not limited to cellular plastics, cellular foam (either with or without coverings as applicable), polypropylene, and high density polyethylene should be tested by NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth. In SGS Govmark's opinion, the codes require NFPA 286 for such products, even in sprinklered areas.

CERTIFICATION: I certify that the reported results were obtained after testing specimens in accordance with the procedures and equipment specified above.

-----  
AUTHORIZED SIGNATURE  
SGS GOVMARK  
/jap /gb

Phyllis Pettit

Test Engineer: Andrew Niemczyk

OCT 16 2019

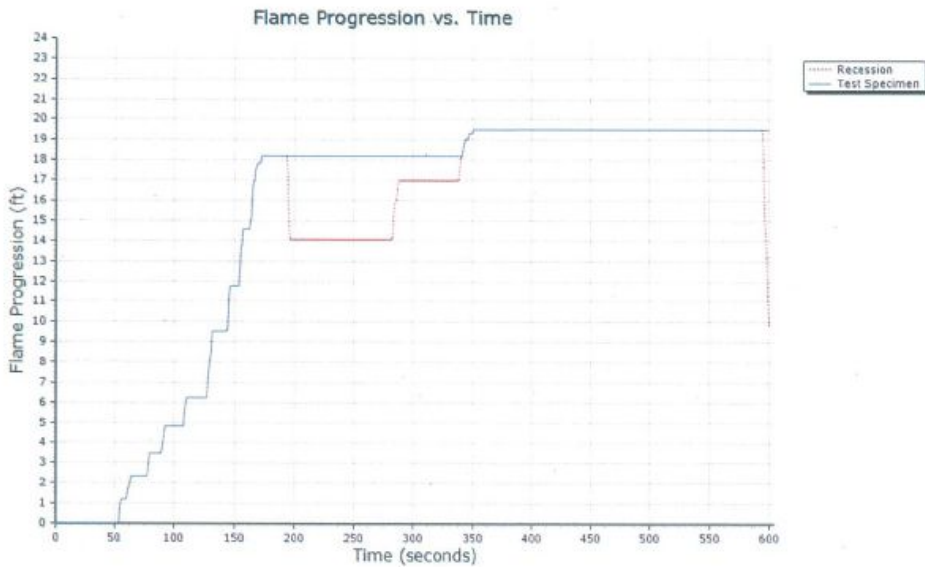
Enclosure: Graphs



Program: ASTM E84 (Version 1.02)

Test Method : ASTM E84  
Test Report # : 3-34727-0-F  
Date : 10/14/2019  
Client : Bureau Veritas  
Operator : Andrew Niemczyk  
Details of Preparation : Adheard to type X gypsum using Pro Roman 880  
24' length comprised of 3 eight foot sections, butted end  
to end  
Observations : Moderate burning pieces on the chamber floor.

Area Under Flame Curve (ft min) : 149.40  
Raw Flame Spread Index (ft min) : 107.45  
Rounded Flame Spread Index (ft min) : **105**  
Ignition Time : **00:42 mm:ss**  
Area Under Smoke Curve (%A min) : 344.95  
Raw Smoke-Developed Index : 341.98  
Rounded Smoke-Developed Index : **350**  
Total Gas Flow(L) : 1420.8  
Total Gas Flow(ft<sup>3</sup>) : 50.2  
Maximum Flame Front Achieved(ft) : 19.5 (@351s)





Test Method : ASTM E84  
Test Report # : 3-34727-0-F

