



**Tested For:** Novawall Systems, Inc  
5230 Eisenhower Ave  
Alexandria, VA 22304  
USA

**Phone:** (703) 461-0113  
**Fax:**  
**Mobile:**  
**PO#:**  
**Email:** Novaform@Novawall.com

**Received:** 3/12/2021  
**Completed:** 3/15/2021  
**Code:** K  
**Test Report:** 3-42966-0

**Key Test:** ASTM E84 (Int Fln)

805

#### 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: Twelve 2ft. sections butted end to end

**ADHESIVE (applied by SGS North America):**  No  
 Yes - (specify): \_\_\_\_\_

#### OBSERVATIONS:

- No unusual observations
- Burning Drips to Floor further qualified as:  Minor;  Moderate;  Major
- Delamination
- Sagging
- Shrinkage
- Fallout (specimen displacement from ceiling mount)
- Other: Material melted away. Heavy fire dripping/pooling on floor all the way down the full 24ft tunnel.

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**REMARKS:**

- None  
 Other: \_\_\_\_\_

**RESULTS:**

Flame Spread Index: 10  
Smoke Developed: 450

**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 behavior that destroys the continuity of the flame front such that a valid flame spread is unobtainable (See "Remarks")

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**DATA SUMMARY:**

Time to Ignition (minutes:seconds): 00:22  
 Maximum Flame Spread "Distance" (feet): 2.3  
 Maximum Flame Spread "Time" (seconds): 47

**CODE CLASSIFICATION SYSTEM (Please see "ASTM E84 Limitations"):**

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 NFPA 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 North America's opinion, the codes require NFPA 286 for such products, even in sprinklered areas.

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

AUTHORIZED SIGNATURE  
SGS NORTH AMERICA  
/dv /gb

Test Engineer: Jillian Guillem

Enclosure: Graphs

MAR 18 2021

  
Bobby Brown

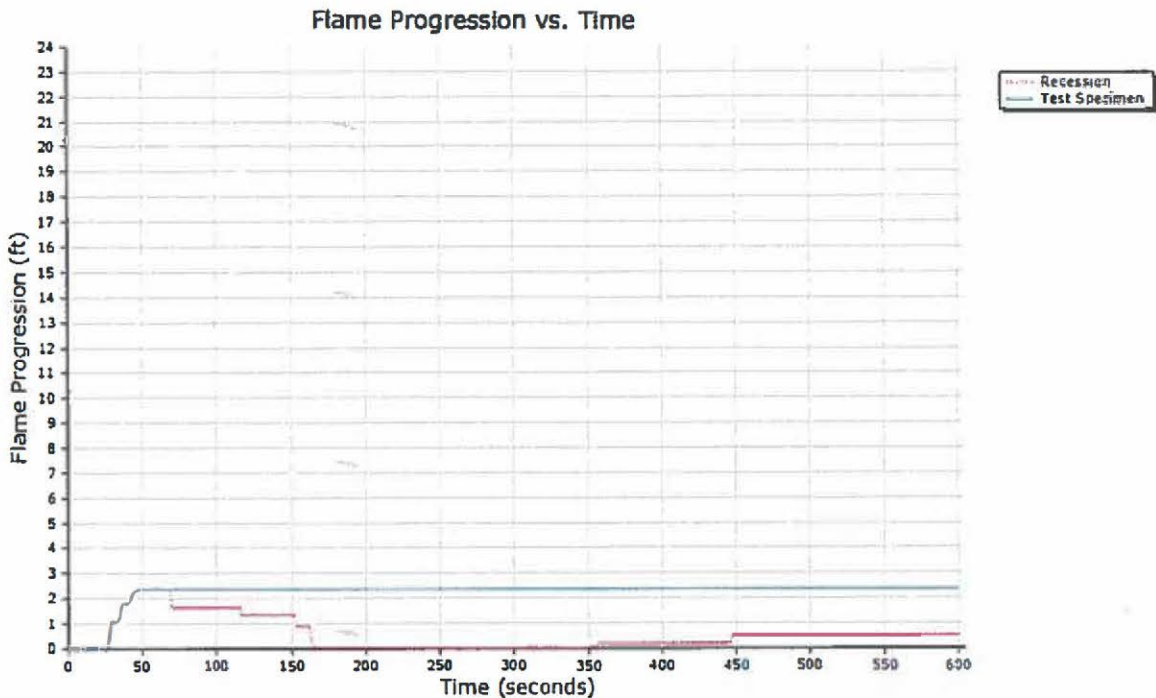
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Test Method : ASTM E84  
Test Report # : 3-42966-0-K  
Date : 3/15/2021  
Client : Novawall Systems, Inc  
Operator : Jillian Guillem  
Details of Preparation : The test specimen was not adhered to any substrate. Instead, it was laid over a 2" hexagonal wire mesh screen and 1/4" rods. The 24 ft. specimen length was comprised of twelve 2 ft. sections butted end to end.  
Observations : Material melted away. Heavy fire dripping/pooling on floor all the way down the full 24 ft tunnel.

Area Under Flame Curve (ft min) : 22.15  
Raw Flame Spread Index (ft min) : 11.41  
Rounded Flame Spread Index (ft min) : 10  
Ignition Time : 00:22 mm:ss  
Area Under Smoke Curve (%A min) : 475.21  
Raw Smoke-Developed Index : 441.90  
Rounded Smoke-Developed Index : 450  
Total Gas Flow(L) : 1482.6  
Total Gas Flow(ft<sup>3</sup>) : 52.4  
Maximum Flame Front Achieved(ft) : 2.3 (@47s)



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Light Absorption vs. Time

