



ASTM E84 – Surface Burning Characteristics of Building Materials

Technical Bulletin

November 2014

The purpose of the method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame spread and smoke density developed are reported, however, there is not necessarily a relationship between these two measurements.

For a more complete understanding of this test method, refer to: **ASTM E84 - 10 Standard Test Method for Surface Burning Characteristics of Building Materials**

This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of fire risk assessments which take into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

| 3M Product Tested | Flame Spread Index | Smoke Developed Index | Class Rating |
|---|--------------------|-----------------------|--------------|
| 3M™ Fastbond™ Contact Adhesive 30NF and 30H | 1 | 10 | A |
| 3M™ Water Based Pressure Sensitive Spray Adhesive 42 | 0 | 15 | A |
| 3M™ Fastbond™ Insulation Adhesive 49 | 1.8 | 4 | A |
| 3M™ Super 77 Multipurpose Adhesive | 0 | 0 | A |
| 3M™ Hold Fast 70 Cylinder Adhesive | 0 | 0 | A |
| 3M™ Polystyrene Insulation Adhesive 78ET | 0 | 0 | A |
| 3M™ Polystyrene Hi-Temperature Insulation Adhesive 78HT | 0 | 0 | A |
| 3M™ Hi-Strength Postforming 94 CA Adhesive | 5 | 20 | A |
| 3M™ Hi-Strength 94 ET Adhesive | 0 | 0 | A |
| 3M™ Fastbond™ Foam Adhesive 100 | 5 | 10 | A |
| 3M™ Hi-Strength 94 ET Adhesive | 0 | 0 | A |
| 3M™ Fast Tack Water Based Adhesive 1000NF | 0 | 5 | A |
| 3M™ Neoprene High Performance Contact Adhesive 1357 | 0 | 19 | A |
| 3M™ Fastbond™ Blue Glue 4224NF | 0 | 15 | A |
| 3M™ Fastbond™ Pressure Sensitive Adhesive 4224NF | 0 | 15 | A |
| 3M™ Industrial Adhesive 4799 | 15 | 50 | A |

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| Class Rating | Flame Spread Index | Smoke Developed Index |
|--------------|--------------------|-----------------------|
| A | 0 - 25 | 0 - 450 |
| B | 26 - 75 | 0 - 450 |
| | 76 - 200 | 0 - 450 |

This test method is also published under the following designations:

- ANSI 2.5
- NFPA 255
- UBC 8-1 (42-1)
- UL 723

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ISO 9001:2000

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Industrial Adhesives and Tapes Division

3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550 • 877-369-2923 (Fax)
www.3M.com/adhesives

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