

## **Flamecheck Certifications for M-111:**

- U.S. & International Patents Issued
- NFPA Certified ASTM Certified
- Extensive International Certifications
- ISO Certified

## **Flame Retardant Performance Standards: North American**

Fed. Test Method 191A - method 5903  
DOT MVSS-302  
Fed. Spec. PPP-F-320D (fiberboard, corrugated & solid sheet stock)  
NFPA-701 Large Scale Tests  
NFPA-701 Small Scale Tests  
NFPA -705 Vertical Flame test for fabrics  
ASTM Standard Method of Test E 648-84  
ASTM-E-84 Test on paper Wall Covering  
ASTM E-84 Test on wood paneling  
ASTM-E-84 Test on Pine Lumber  
ASTM-E-84 Test on Hemlock Wood panel  
ASTM-E-162  
NFPA 255  
UL 723  
UBC 42-1  
FAA 25 and 853B Vertical & Horizontal  
CAN 204.2 M77  
MEA# 311-90-M Vol. II  
CSFM Title 19-1237 & 1237.1  
N.Y.F.D.C. of A. No. 4798  
NFPA 253  
NASA - WSTF #90-23883 (A&B)  
WHB 8060.1B (coverall textile)  
U.S.C.G.  
NTB #44  
BFD IX-1

## **Toxicity Tests of Flamecheck M-111**

Acute Oral Toxicity Study (Hill Top Biolabs)  
Primary Skin Irritation Study (Hill Top Biolabs)  
Toxicity on sewer sludge (Newcastle University)  
Toxicity on Fish (Newcastle University)

## **International FR Tests**

French: M1 & M3  
British: BS 5852  
British: BS 476 part 7  
Kuwait: K.O.C.  
Germany: DIN# 4102 Class 1

## **Definitions**

**ASTM E 84** (30 minute) - Standard Test Method for Surface Burning Characteristics of Building Materials.

**ASTM E 119** - Standard Test Methods for Fire Tests of Building Construction and Materials.

**ASTM E 2768** – Standard Test Method Extended Duration Surface Building Characteristics of Building Materials

**UL 263** – Fire Resistant Rated Assemblies

**NFPA 251** – Standard Methods of Tests of Fire Endurance of Building Construction and Materials

**NFPA 286** - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.

**NFPA 701** – Vertical Flame test for fabric.

**NFPA 703** – Standard for Fire Retardant Treated Wood and Fire Retardant Coatings for Building Materials

**NFPA 705** – Vertical flame test for fabric, curtaining materials

**CSFM Title 19** – California flame retardant standard

**UL 723** - Test for Surface Burning Characteristics of Building Materials

**CAN/ULC – S – 101** Standard Methods of Tests of Fire Endurance of Building Construction and Materials

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