FLAMMABILITY TEST RESULTS

SUMMARY

Lumiform achieves a Class A fire rating for gauges up to 3/8" thick and Class B for thicker gauges. In most circumstances, Class B rated materials can be used in place of Class A where a fire sprinkler system is in place. Lumiform also meets the requirements of many municipal and national / international building codes.

IBC (INTERNATIONAL BUILDING CODE) CHAPTER 8 - INTERIOR FINISHES

Lumiform achieves a Class A fire rating for gauges up to 3/8" thick and Class B for thicker gauges. In most circumstances, Class B rated materials can be used in place of Class A where a fire sprinkler system is in place. Lumiform also meets the requirements of many municipal and national / international building codes.

Lumiform achieves a Class A fire rating. While Lumiform passes the ASTM E-84, Steiner Tunnel Test with a Class B fire rating, Lumiform also passes the NFPA 286 Room Corner Test which is accepted by the IBC for interior finishes. Chapter 8 of the 2006 IBC 803.5 indicates that interior walls and ceiling finish materials, other than textiles, tested in accordance with NFPA 286 and meeting the acceptance criteria of Section 803.1.2.1, shall be permitted to be used where a Class A classification in accordance with ASTM E-84 is required. **Please also note that a class B material can be used in place of a Class A material when installed with an approved, automatic fire suppression system.**

Although the industry recognizes the ASTM E-84 test as the benchmark for fire classification ratings, the Steiner Tunnel test was never intended to accurately describe the actual behavior of a material in a fire. The NFPA 286 test is a more effective simulation of the dynamics and physics involved in a fire because it accurately describes the behavior of a building material during a real fire situation.

IBC CHAPTER 26 - PLASTIC

In addition to the above tests there are three specific ASTM tests which are the basic criteria for a plastic material to be recognized by BOCA, ICBO, and SBCCI.

NFPA 101 (Section 6-5.3) refers use of light transmitting plastic for interior application to authorities and organizations having local jurisdiction. Such authorities typically adopt the U.S. Model Building Codes, which are supported by the organizations listed below:

- Building Officials and Code Administration International (BOCA)
- International Conference of Building Officials (ICBO)
- Southern Building Code Congress International (SBCCI)

NATIONAL BUILDING CODE OF CANADA 2010

Lumiform meets the performance requirements of the National Building Code of Canada 2010. Testing was performed in accordance with CAN/ULC-S102.2 Surface Burning Characteristics.

EU FIRE CLASSIFICATION

EN ISO 11925-2 and EN 13823 testing was carried out in accordance with EN 13501-1:2007 and EN TS 15117 with a resulting classification of B – s2, d0 for gauges 3mm to 12mm.

LOCAL MUNICIPALITIES

Lumiform is further recognized by the New York Department of Buildings (MEA 159-08-M) and the Miami-Dade Building Code Compliance Office (NOA 08-0424.01).

TEST DATA

Code	Test	Classification	Result
IBC Chapter 8 Interior Finishes	NFPA 286 Room Corner Test	Class A (1/4" gauge)	PASS (walls only)
IBC Chapter 8 Interior Finishes	NFPA 286 Room Corner Test	Class A (1/4" gauge)	PASS (ceilings only, standoff mount)
IBC Chapter 8 Interior Finishes	NFPA 286 Room Corner Test	Class A (3/8" gauge)	PASS (walls only, standoff mount)
IBC Chapter 8 Interior Finishes	UL 723 / ASTM E-84 Steiner Tunnel Test*	Class A (1/8" gauge)	Flame Spread Index: 15 Smoke Developed Index: 165*
IBC Chapter 8 Interior Finishes	UL 723 / ASTM E-84 Steiner Tunnel Test*	Class B (1/4" gauge)	Flame Spread Index: 60 Smoke Developed Index: 450*
IBC Chapter 8 Interior Finishes	UL 723 / ASTM E-84 Steiner Tunnel Test*	Class B (3/8" gauge)	Flame Spread Index: 35 Smoke Developed Index: 350*
IBC Chapter 8 Interior Finishes	UL 723 / ASTM E-84 Steiner Tunnel Test*	Class B (1/2" gauge)	Flame Spread Index: 50 Smoke Developed Index: 350*
IBC Chapter 8 Interior Finishes	UL 723 / ASTM E-84 Steiner Tunnel Test*	Class B (3/4" gauge)	Flame Spread Index: 55 Smoke Developed Index: 400*
IBC Chapter 8 Interior Finishes	UL 723 / ASTM E-84 Steiner Tunnel Test*	Class B (1" gauge)	Flame Spread Index: 40 Smoke Developed Index: 350*
IBC Chapter 26 Plastic	ASTM D-635 Combustion Rating	CC1 (self-extinguishing)	PASS
IBC Chapter 26 Plastic	ASTM D-1929 Self Ignition Temperature	PASS	752° F vs. 650° F minimum
IBC Chapter 26 Plastic	ASTM D-2843 Smoke Density Rating	PASS	56.6% Smoke Density vs. 75% maximum
National Building Code of Canada 2010	CAN/ULC-S102.2 Surface Burning Characteristics	(1/8" gauge)	Flame Spread Rating: 55 Smoke Development Classification: 450
National Building Code of Canada 2010	CAN/ULC-S102.2 Surface Burning Characteristics	(1/4" gauge)	Flame Spread Rating: 55 Smoke Development Classification: 410
National Building Code of Canada 2010	CAN/ULC-S102.2 Surface Burning Characteristics	(3/8" gauge)	Flame Spread Rating: 45 Smoke Development Classification: 360
EU Fire Classification EN 13501-1:2007 EN TA 15117	EN ISO 11925-2 EN 13823	COMPLIANT (gauges 3mm - 12mm)	B - s2, d0

*Consistent with standard industry and testing practice, the flame spread and smoke developed were recorded while the material remained in the original test position. These results do not include the material that ignited on the furnace floor.