

# FLAMMABILITY SUMMARY

## FLAMMABILITY RATING

The International Building Code (IBC) uses ASTM E84 flammability classification system for resin panels. ASTM E84 testing measures flame spread and smoke development of samples placed in a test chamber and subjected to an open flame. Results are reported as Flame Spread Index (FSI) and Smoke Developed Index (SDI) and are used to classify resins and other materials in three possible categories (Class A, Class B, or Class C) as shown in Table 1 below. Because the gauge of the material affects the test results, the flammability rating is gauge specific.

CLASSIFICATION	FSI (FLAME SPREAD)	SDI (SMOKE DEVELOPED)
Class A	0 to 25	<450
Class B	26 to 75	<450
Class C	76 to 200	<450

Furthermore, NFPA 286 testing may be performed in place of ASTM E84 testing. This is a pass fail test that more closely simulates materials installed on walls or ceilings. Passing the NFPA 286 allows a material to qualify as Class A under the current IBC code.

## LUMICOR PRODUCTS

See Table 2 below for a summary of current flammability ratings for Lumicor products.

GAUGE	LUMIFORM	LUMICLEAR
.118"	Class A	Class C
.236"	Class A*	Class C
.354"	Class A*	Class C
.472"	Class B	Class C
.708"	Class B	Class C
.944"	Class B	Class C

\*Obtains Class A status through successfully passing the NFPA 286.

All technical advice, suggestions, recommendations and services are based on information believed to be reliable. The samples and information supplied are intended for use by skilled persons at their own risk. Users should verify for themselves that the information provided is suited for user's intended application. Lumicor makes no expressed or implied warranty, including, without limitation, the warranties of merchantability, fitness for a particular purpose (even if that purpose is known to Lumicor), or from any course of dealing or trade usage regarding any materials supplied hereunder. This warranty does not cover damage caused by mishandling, misuse, improper installation, damage from excessive heat or exposure to weather, physical or chemical abuse, or acts of nature.

## 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.