



Photoluminescent Film 6900 HPPL

Product Bulletin 6900 HPPL

November 2010

Description

3M™ Photoluminescent Film 6900 HPPL is a **high performance** photoluminescent film for safety and emergency exit signage.

- Meets and exceeds New York City Bldg. Code Ref. Std. RS 6-1 and RS 6-1A.
- Meets and exceeds ASTM E2072-00.
- Rechargeable “glow in the dark” signs and markings.
- Dimensionally stable, durable, multilayer film.
- Excellent chemical and stain resistance.
- Easily cleaned with 3M™ Citrus Base Cleaner.
- No radioactive materials used in manufacture of this product.
- May be safely disposed of in a sanitary landfill or by incineration.

Application and Uses

Primarily intended for interior luminous signs and markings, including safety signage in buildings.

Limitations of End Uses

3M Photoluminescent Film 6900 HPPL is not intended or warranted for the following:

- Application surfaces subjected to gasoline spills or vapors.
- Application to complex curved surfaces, corrugated surfaces or riveted surfaces.
- Outdoor applications.

Compatible Products

The following products can be used with 6900 HPPL photoluminescent film:

- 3M™ Diamond Grade™ VIP Reflective Sheeting Series 3990
- 3M™ Scotchcal™ Film Series 100, 180, 3630, 3650, 3690
- 3M™ Application Prespacing Tape SCPS-2 and SCPS-100
- May be imaged using 3M™ Scotchcal™ Screen Printing Inks 2900 and 9700 or thermal transfer methods.

Product Data

Physical Properties

<u>Property</u>	<u>Description</u>
Visual Appearance	Glossy appearance, light yellow green color
Adhesive	Permanent pressure sensitive
Application Surface	Flat, simple curves
Application Temperature Range	50°F to 100°F 10°C to 38°C

Typical Physical Properties

<u>Property</u>	<u>Values</u>
Thickness (film and adhesive)	9-11 mils
Service temperature range	-30°F to 200°F -34°C to 90°C
Applied shrinkage	0.031 inch 0.8 mm

General Performance Considerations

The durability of 3M™ Photoluminescent Film 6900 HPPL depends on the following:

- Selection and preparation of the substrate
- Application methods
- Cleaning methods

Cutting

The accepted cutting methods for 3M photoluminescent film 6900 HPPL are bandsaw, guillotine, hand cut, die cut, and flatbed electronic cutter.

Application

Apply 3M photoluminescent film 6900 HPPL like any other 3M pressure sensitive film. The application temperature range for both the air and substrate is 50°F to 100°F (10°C to 38°C).

Removal

3M photoluminescent film 6900 HPPL has an aggressive, pressure sensitive adhesive. The use of a heat gun or steam cleaner will aid in removal. 3M™ Citrus Base Cleaner is recommended for the removal of adhesive residue from substrates.

Photoluminescent Characteristics

Background – The high performance Photoluminescent Film meets and exceeds New York City Building Code Reference Standard RS 6-1. The difference between New York City Building Code Reference Standard RS 6-1 and ASTM E2072-00 luminance values is that the test method used in ASTM E2072-00 uses a more powerful light source.

Photoluminescence

Photoluminescence as tested by New York City Building Code Reference Standard RS 6-1.

	New York City Building Code Reference Standard RS 6-1.	High Performance Photoluminescent Film
Elapsed Time (Minutes)	Luminance Spec. (mcd/m ²)	Typical Luminance (mcd/m ²)
10	30	50
60	7	13
90	5	7

Photoluminescence as tested by ASTM E 2072-00

	ASTM E 2072-00	High Performance Photoluminescent Film
Elapsed Time (Minutes)	Luminance Spec. (mcd/m ²)	Typical Luminance (mcd/m ²)
10	20	160
60	2.8	20

Chemical Characteristics

Resists mild acids, mild alkalis, and salt spray.

Health and Safety Information

Read all health hazard, precautionary, and first aid statements found in the Material Safety Data Sheet and/or product label of chemicals prior to handling or use.

Performance Life

The performance life of 6900 HPPL photoluminescent material may vary depending on application techniques. Experience has shown that when properly applied, this material will remain highly effective for safety and emergency exit signage for up to six (6) years but no warranty of durability is given for this material.

FOR INFORMATION OR ASSISTANCE

CALL:
1-800-553-1380

Internet:
www.3M.com/tss

3M assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where reference is made in literature to a commercially available product, made by another manufacturer, it shall be the user's responsibility to ascertain the precautionary measures for its use outlined by the manufacturer.

Important Notice

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, or conditions express or implied. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct, special or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith. Statements or recommendations not contained herein shall have no force or effect unless in an agreement signed by officers of seller and manufacturer.

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