

PolyesPro®

Product bulletin

PolyesPro® Pipe Marking film

Product Description

PolyesPro® Pipe Marking film is a high performance non-PVC polyester sandwich, manufactured according to 3M™ production specifications, for the marking of pipes and pipeline systems. With a 3M™ base polyester material printed with Eco Solvents on a 3M™ Configured Printer and a 3M™ Protective Laminate, this Pipe Marking product can be used in demanding environments, and with a long expected lifetime. The 130 micron acrylic glue backing ensures an excellent adhesion on different types of smooth and rough surfaces.

Adhesive

The 130 micron acrylic glue backing is the most universal adhesive, combining excellent temperature, chemical and UV resistance with initial tack. The high coat weight gives an extremely strong adhesive which sticks well to rough surfaces and low energy plastics. PolyesPro® can be applied to steel, stainless steel, aluminum, plastic, glass and (silicon free) painted piping.

Product Characteristics

These are indicative values for processed products.

Physical & Application	Material	75 micron non-PVC Polyester printed with UV eco solvents ink on a 3M™ Configured printer, laminated with a 50 micron non-PVC clear polymer with UV blocker.	
	Surface finish	glossy	
	Thickness (film)	110 µm (0.10 mm)	
	Adhesive type	130 micron acrylic, pressure sensitive without halogenated (chlorinated) compounds added	
	Adhesive appearance	transparent	
	Liner	double-sided Polyethylene coated paper	
	Adhesion	30+ N/25 mm	FTM 1: 180° peel, substrate: alum; cond: 24 h 23°C/50%RH
	Application method	dry only!	
	Application temperature (minimum air and substrate)	+4°C to +38°C	for flat surfaces
	Notice!	3M recommends application at +18°C to +22°C for optimum ease of application.	
	Service temperature (after application)	-40°C to +130°C	
	Surface type	flat to compound curved, rivets and corrugations, deep channels and recesses	
	Surface type	steel, stainless steel, aluminum, PMMA, ABS, glass and (silicon free) painted piping.	
	Print - Ink	3M™ (co-branded) UV Eco Solvents ink	
	Flammability	Ask your local PolyesPro contact	
Chemical Resistance	Resistant to most mild acids, alkalis, and salt solutions including water. Resists Petroleum Vapors.		
Storage & Shipment	Shelf life	This product has a shelf life of 1 year if stored between 10°C and 25°C and 35 to 65% RH.	
	HS Code	3919 9000	

Durability

The durabilities mentioned in the table below are the results of illustrative lab tests. The values show the best performance expected from these products, provided that the film will be processed and applied professionally according to 3M's recommendations.

The durability statements do not constitute warranties of quality, life and characteristics.

The durability of products is also influenced by:

- the type of substrate and thorough preparation of the surface
- application procedures
- environmental factors
- the method and the frequency of cleaning

Climatic zones Graphic durability is largely determined by the climate and the angle of exposure. Find below a table showing the durability of a product according to the angle of exposure and the geographical location of the application.

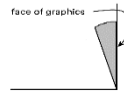
Zone 1 Northern Europe, Italy (north of Rome), Russia

Zone 2 Mediterranean area without North Africa, South Africa

Zone 3 Gulf area, Africa

Exposure types

Vertical:



The face of the graphic is $\pm 10^\circ$ from vertical.

Interior: Interior means an application inside a building without direct exposure to sunlight.

Vertical outdoor exposure

Zone 1

Zone 2

Zone 3

12 years

10 years

8 years

Indoor (interior) application

Zone 1

Zone 2

Zone 3

12 years

12 years

12 years

Warranty

The warranty granted by PolyesPro® is 5 years, when applied by 3M™ Certified Safety Sign Installers™, and according to 3M™ application recommendations. The warranty includes the adhesion, delamination and extreme color fading. Abrasion and loss of gloss are not covered by any warranty. This is considered normal wear and tear.

Limitations of End Uses

PolyesPro / 3M specifically does not recommend or warrant the following uses;

- low surface energy substrates or substrates with low surface energy coating
- surfaces with poor paint to substrate adhesion
- surfaces that are not clean
- joints / welds deeper or higher than 3.1 mm
- flexible substrates, such as flexibile isolation blankets
- isolation materials without finishing, with rough surface

Maintenance and Cleaning

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline).

Remarks

This bulletin provides technical information only.

Important notice

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

As outdoor graphics age, natural weathering occurs causing a gradual reduction in gloss, slight color changes, some lifting of the graphic at the edges or around rivets, and ultimately a minor amount of cracking.

These changes are not evidence of product failure and are not covered by a warranty.