

PolyesPro[®]

Product Data Sheet

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.

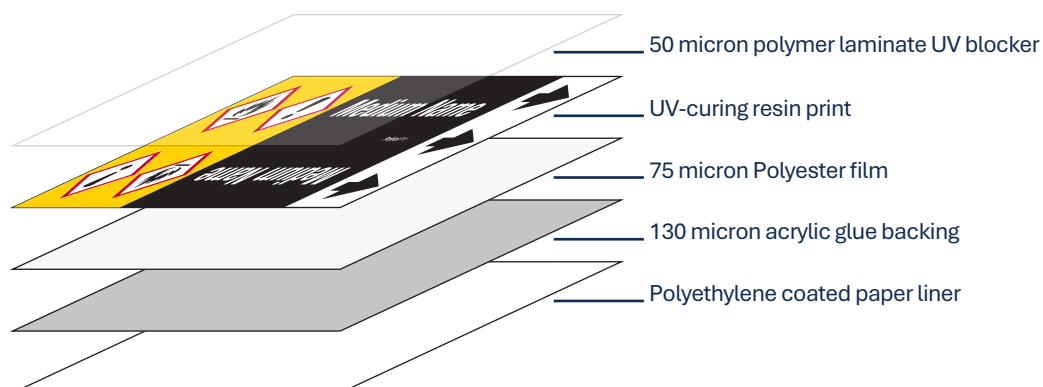
With a 3M[™] base polyester material printed with UV-curing resins on a 3M[™] configured printer and a 3M[™] protective laminate, this Pipe Marking product can be used in demanding environments, and with a long expected lifetime. The 130 micron acrylic glue backing ensures an excellent adhesion on different types of smooth and rough surfaces, with fluid properties which act as a sealant, mitigating the risk of Corrosion Under Sticker/Label (CUS / CUL).

- Pipe marking for industrial and offshore application, in- and outdoor;
- Colorvast and resistance to base chemicals;
- 130 mic acrylic glue backing preventing corrosion;
- Applicable on stainless steel, free of chlorines/halogenes;
- Tested for use in ATEX environments (IEC 60079-0:2017).

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 composition figure



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Product

Note : These are indicative values for processed products.

Characteristics

Physical & Application

Material:

75 micron non-PVC Polyester printed with UV-curing resin ink on a 3M™ configured printer, laminated with a 50 micron non-PVC clear polymer with UV blocker.

Surface finish : Glossy

Thickness (film) : 10 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 : +4°C to +38°C (for flat surfaces)

(minimum air and substrate) 3M recommends application at +18°C to +22°C for optimum ease of application

Service temperature : -40°C to +130°C

(after application)

Surface type : Flat to compound curved, rivets and corrugations, deep channels and recesses

Substrate type : Steel, stainless steel, aluminum, PMMA, ABS, glass and (silicon free) painted piping

Print - Ink : 3M™ (co-branded) UV-curing resin ink

Flammability : Ask your local PolyесPro contact

Chemical Resistance : Tested according to ISO 2812-1

Resistant to most mild acids, alkalis, and salt solutions including water

Resists Petroleum Vapors

Explosion Safety : Tested according to IEC 60079-0:2017

Surface resistance test (IEC 670079-0, clause 26.13) of non metallic plates/ stickers

Surface Resistance at 50% Humidity : 79.8 / 81.8 G ohms

Surface Resistance at 30% Humidity : 45.8 / 49.9 G ohms

(The surface resistance limit is 100 G ohms)

The surface of the material complies with the requirements of IEC 60079-0:2017 clauses 7.4.2a) and 7.4.3a). The risk of electrostatic charging is avoided in accordance with these clauses.

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

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).

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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

	Zone 1	Zone 2	Zone 3
Vertical outdoor exposure :	12 years	10 years	8 years
Indoor (interior) application :	12 years	12 years	12 years

(interior) means an application inside a building without direct exposure to sunlight.

Warranty

The warranty granted by PolyесPro® 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 flexible isolation blankets
- isolation materials without finishing, with rough surface

Remarks

Important notice

This Product Data Sheet provides technical information only.

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.