

DTC Label Specification

Commercial in Confidence



Thermal Transfer Polyester Material Specification

Product Description

A-714-GX SILVER is a 50 micron, platinum silver polyester label stock designed for thermal transfer printing. This product utilizes 350E adhesive, designed to provide excellent adhesion to high and low surface energy plastics, metals, painted metals and powder coatings.

Physical Properties

Facestock	50-micron platinum silver polyester
Adhesive	46-micron 350E acrylic
Liner	56-micron, 62 g/m ² white densified double-sided glassine

Key Features

- Facestock is topcoated for thermal transfer printing. Resin ribbons are recommended for optimum durability. The topcoat also provides improved ink anchorage for traditional forms of press printing
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- Polyester facestock provides durability in harsh environments.
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- 350E is 3M's most universal labelstock adhesive and offers excellent adhesion, even on low surface energy substrates, combined with excellent temperature and chemical resistance.
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- 46 micron adhesive coat weight gives excellent adhesion to textured surfaces
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- Densified double-sided glassine liner for consistent die cutting. The double-side liner improves ease of dispensing.
- UL and cUL recognized (File Number MH18072)

Performance Characteristics

Standard Test Conditions are 23°C and 50% Relative Humidity

180° Peel Adhesion tested using FINAT Test Procedure FTM 1 (300mm/min) 90° Peel Adhesion tested using FINAT Test Procedure FTM 2 (300mm/min)

Adhesion	20 Minutes at Standard Conditions		72 Hours at Standard Conditions	
	180° Peel N/25mm	90° Peel N/25mm	180° Peel N/25mm	90° Peel N/25mm
Stainless Steel	23.1	20.4	29.4	24.6
ABS	20.3	15.3	24.6	20.1
Polycarbonate	22.4	16.3	26.4	20.5
Polypropylene	21.2	16.0	22.6	19.9

Adhesion	72 Hours at 70°C		72 Hours at - 40°C	
	180° Peel N/25mm	90° Peel N/25mm	180° Peel N/25mm	90° Peel N/25mm
Stainless Steel	28.0	25.5	27.1	25.6
ABS	25.1	18.0	23.2	24.8
Polycarbonate	23.7	21.4	26.6	23.8
Polypropylene	17.0	10.8	23.4	21.7

Adhesion	72 Hours at 40°C and 95% RH	
	180° Peel N/25mm	90° Peel N/25mm
Stainless Steel	26.8	24.5
ABS	21.1	23.8
Polycarbonate	18.9	23.8
Polypropylene	23.9	19.5

Liner Release tested using FINAT Test Procedures FTM 3 (180° removal of liner from face material at 300mm/min) FTM 4 (180° removal of liner from face material at 10m/min)

Liner Release	Rate of Removal	Release Force	Units
FTM3	300 mm per min	18.9	cN/50mm
FTM4	10 m permin	9.0	cN/25mm

Temperature resistance of label applied to stainless steel. Other substrates should be tested as per application.

Service Temperature	-40 to 150°C
Minimum Application Temperature	s0c

Processing

Printing

Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. Thermal transfer printing with resin ribbons is recommended for optimum durability. The topcoat provides improved ink anchorage for standard roll-processing methods including flexography, letterpress, and screen-printing.

Die-Cutting

Rotary die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.

Packaging

Finished labels should be stored in plastic bags.

Special Considerations

For maximum bond strength, the surface should be clean and dry. isopropyl alcohol is a typical cleaning solvent.

Note: When using solvents, read and follow the manufacturer's precautions and directions for use.

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 5°C can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds can be achieved through increased rubdown pressure

Storage

Store at standard room temperature conditions of 21°C and 50% relative humidity.

Shelf Life

24 months from date of dispatch by 3M when stored in the original packaging at 21°C & 50 % relative humidity.

Specifications Note

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications.