



Technical Data Sheet

3M™ Sheet Label Material 7909

English-US **Last Revision Date:** June, 2024

Supersedes: April, 2024





Product Details

Regulatory Info/SDS

Product Description

 $3M^{\text{TM}}$ Sheet Label Materials are durable, high performance materials that offer excellent thermal stability, moisture resistance and chemical resistance. These materials utilize $3M^{\text{TM}}$ Adhesive 350, which is designed to permanently bond to high and low surface energy plastics, textured and contoured surfaces, powder coatings, and slightly oily metals.

Product Features

- Liner for 3M™ Sheet Label Material 7909 provides easy sheet processing and is designed for layflat. The backside of the liner is not printable.
- UL Recognized files MH11410, CSA Group Certified file 99316

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Attribute Name	Value
Adhesive Type	350 Acrylic
Facestock	Brushed Silver Polyester TC
Adhesive Coat Weight	2.70 — 3.24 g/100 in ²

Attribute Name	Value
Adhesive Thickness	0.046 mm (1.8 mil)
Facestock Thickness	0.051 mm (2 mil)
Liner	90# Polyctd. bleached kraft sheet bleached kraft sheet
	sides
Liner Thickness	0.17 mm (6.7 mil)

Attribute Name	Value
	In order to capture the superior performance properties of
	3M™ High Holding Acrylic Adhesive 350, thicker calipers
	are utilized for LSE or textured substrates. Its higher
Convertability	caliper, while desirable for the end use applications, may
Convertability	require extra care during processing. Please refer to the die
	cutting/converting section of this data page or the "Guide
	to Converting and Handling Label Products" technical
	bulletin for additional information.

Typical Performance Characteristics

Temperature: 22 °C (72 °F)

Attribute Name	Test Method	Value
Liner Release	TLMI	5 — 70 g/2 in ¹

^{1 180°} removal, 300 in/min

Attribute Name	Value
Minimum Application Temperature	10 °C (50 °F)
Long Term Temperature Resistance	149 °C (302 °F) ¹
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) ¹

Long Term (day, weeks)

180° Peel Adhesion

Temperature: 22 °C (72 °F)

Dwell Time: 72 h

Test Method: ASTM D3330

Substrate	Value
Polycarbonate (PC)	10.3 N/cm (94 oz/in) ¹
Polypropylene (PP)	9.1 N/cm (83 oz/in) ¹
Stainless Steel	10.5 N/cm (96 oz/in) ¹

^{1 12} in/min (300 mm/min)

Attribute Name	Value
Note	Calipers are nominal values

Typical Environmental Characteristics

Humidity Resistance

24 hours at 100°F (38°C) and 100% relative humidity: no significant change in appearance or adhesion

Temperature Resistance

 $300^{\circ}F$ ($149^{\circ}C$) for 24 hours: no significant visual change $-40^{\circ}F$ ($-40^{\circ}C$) for 10 days: no significant visual change

Printing

Print treated material is receptive to many inks including UV and conventional ink systems. The converter should verify that their ink systems are compatible with the polyester film by testing beforehand. The material is also receptive to other forms of printing including hot stamping. The converter should verify that the method of printing is compatible with the topcoating by testing beforehand.

Converting

Die cut with steel rule or flatbed dies. The 90# lay-flat liner also allows kiss cutting and back splitting. The converter can cut through the polyester facestock without cutting through the liner. Sheet label materials are not recommended for rotary die cutting and stripping operations.

Handling/Application Information

Application Examples

- Barcode labels and rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates for durable goods.
- 3M™ Sheet Label Material 7909 is suitable as a substitute for stamped metal, riveted plates.

Application Techniques

For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and isopropyl alcohol.*

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 50°F (10°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.

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

Industry Specifications

UL Recognized, File PGGU2.MH11410, Marking & Labeling System Materials - Component, ANSI/UL 969 CSA Group Certified, File 99316, Class 7922, Adhesive-Type Labels - Label Stock, CSA-C22.2 No. 0.15-15 Update No. 1

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Available Sizes

Attribute Name	Value
Packaging	Finished labels should be stored in plastic bags.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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