

3M™ Sheet Label Material 7903



Last Revision Date: April, 2017

Download PDF

Ask a 3M expert

Product Description

3M™ Sheet Label Materials are durable, high performance materials that offer excellent thermal stability, moisture resistance and chemical resistance. These materials utilize 3M™ 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

- Facestock for 3M™ Sheet Label Material 7903, is print treated for ink anchorage.
- Liner for 3M™ Sheet Label Material 7903 provides easy sheet processing and is designed for layflat. The backside of the liner is not printable.
- 3M™ Sheet Label Material 7903 is UL recognized (File MH11410) and CSA accepted (File 99316). See the UL and CSA listings for details.

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








Property	Values	Additional Information
Adhesive Type	350 Acrylic	
Liner	90# Polycytd. bleached kraft sheet bleached kraft sheet sides	
Liner Thickness	0.17 mm (6.7 mil)	
Facestock	Bright Silver Polyester PT	
Facestock Thickness	0.051 mm (2 mil)	
Adhesive Thickness	1.8 mil (0.046 mm)	
Adhesive Thickness	0.046 mm	
Facestock Thickness		

2/25/22, 11:34 AM

TDS - 3M™ Sheet Label Material 7903

2 mil
Liner Thickness
6.7 mil
Convertability
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 caliper, while desirable for the end use applications, may 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.
Adhesive Coat Weight
2.70 to 3.24 g/100 in²

Typical Performance Characteristics

Property
Values
Additional Information
90° Peel Adhesion Polypropylene (PP)
3.4 N/cm (31 oz/in)
View 
Long Term Temperature Resistance
149 °C (302 °F)
View 
Minimum Long Term Temperature Resistance
-40 °C (-40 °F)
View 
Long Term Temperature Resistance
302 °F
View 
Minimum Long Term Temperature Resistance
-40 °F
View 
Minimum Application Temperature
10 °C (50 °F)
Minimum Application Temperature
50 °F
Note
Calipers are nominal values
180° Peel Adhesion
9.6 N/cm (88 oz/in)
View 
180° Peel Adhesion
88 oz/in
View 

180° Peel Adhesion	
9.8 N/cm (90 oz/in)	
View	✓
180° Peel Adhesion	
90 oz/in	
View	✓
180° Peel Adhesion	
8 N/cm (73 oz/in)	
View	✓
180° Peel Adhesion	
73 oz/in	
View	✓
180° Peel Adhesion	
1.02 N/cm (93 oz/in)	
View	✓
180° Peel Adhesion	
93 oz/in	
View	✓
180° Peel Adhesion	
9.3 N/cm (85 oz/in)	
View	✓
180° Peel Adhesion	
85 oz/in	
View	✓
180° Peel Adhesion	
5.4 N/cm (49 oz/in)	
View	✓
180° Peel Adhesion	
49 oz/in	
View	✓
180° Peel Adhesion	
10.3 N/cm (94 oz/in)	
View	✓
180° Peel Adhesion	
94 oz/in	
View	✓
180° Peel Adhesion	
9.1 N/cm (83 oz/in)	
View	✓
180° Peel Adhesion	
83 oz/in	

View 

180° Peel Adhesion

10.8 N/cm (99 oz/in)

View 

180° Peel Adhesion

99 oz/in

View 

180° Peel Adhesion

6.3 N/cm (58 oz/in)

View 

180° Peel Adhesion

58 oz/in

View 

180° Peel Adhesion

6.1 N/cm (56 oz/in)

View 

180° Peel Adhesion

56 oz/in

View 

180° Peel Adhesion

9.7 N/cm (89 oz/in)

View 

180° Peel Adhesion

89 oz/in

View 

180° Peel Adhesion

5.7 N/cm (52 oz/in)

View 

180° Peel Adhesion

52 oz/in

View 

90° Peel Adhesion Stainless Steel

75 oz/in

View 

90° Peel Adhesion














3.5 N/cm (32 oz/in)

View 

90° Peel Adhesion

32 oz/in

View 

90° Peel Adhesion	
37 oz/in (4 N/cm)	
View 	
180° Peel Adhesion	
11.8 N/cm (108 oz/in)	
View 	
180° Peel Adhesion	
108 oz/in	
View 	
180° Peel Adhesion	
7.2 N/cm (66 oz/in)	
View 	
180° Peel Adhesion	
66 oz/in	
View 	
180° Peel Adhesion	
8.9 N/cm (81 oz/in)	
View 	
180° Peel Adhesion	
81 oz/in	
View 	
180° Peel Adhesion	
6.1 N/cm (56 oz/in)	
View 	
180° Peel Adhesion	
56 oz/in	
View 	
180° Peel Adhesion	
1.6 N/cm (15 oz/in)	
View 	
180° Peel Adhesion	
15 oz/in	
View 	
180° Peel Adhesion	
10.2 N/cm (93 oz/in)	
View 	
180° Peel Adhesion	
93 oz/in	
View 	
180° Peel Adhesion	
6.1 N/cm (56 oz/in)	

View 

180° Peel Adhesion

56 oz/in

View 

90° Peel Adhesion

10.5 N/cm (96 oz/in)

View 

90° Peel Adhesion

96 oz/in

View 

90° Peel Adhesion

3.7 N/cm (34 oz/in)

View 

90° Peel Adhesion

34 oz/in

View 

90° Peel Adhesion

1.6 N/cm (33 oz/in)

View 

90° Peel Adhesion

33 oz/in

View 

90° Peel Adhesion

9.4 N/cm (86 oz/in)

View 

90° Peel Adhesion

86 oz/in

View 

90° Peel Adhesion

3.5 N/cm (32 oz/in)

View 

90° Peel Adhesion

32 oz/in

View 

90° Peel Adhesion

1.5 N/cm (14 oz/in)

View 

90° Peel Adhesion

14 oz/in

View 

180° Peel Adhesion	
10.5 N/cm (96 oz/in)	
View	✓

180° Peel Adhesion	
96 oz/in	
View	✓

90° Peel Adhesion Stainless Steel	
8.2 N/cm	
View	✓

90° Peel Adhesion Glass	
8.4 N/cm (77 oz/in)	
View	✓

90° Peel Adhesion Glass	
77 oz/in	
View	✓

90° Peel Adhesion Polycarbonate (PC)	
7.6 N/cm (69 oz/in)	
View	✓

90° Peel Adhesion Polycarbonate (PC)	
69 oz/in	
View	✓

90° Peel Adhesion Polypropylene (PP)	
31 oz/in	
View	✓

180° Peel Adhesion	
11.6 N/cm (106 oz/in)	
View	✓

180° Peel Adhesion	
106 oz/in	
View	✓

180° Peel Adhesion	
10.8 N/cm (99 oz/in)	
View	✓

180° Peel Adhesion	
99 oz/in	
View	✓

180° Peel Adhesion	
8.4 N/cm (77 oz/in)	
View	✓

180° Peel Adhesion	
77 oz/in	

View 

180° Peel Adhesion

8.5 N/cm (78 oz/in)

View 

180° Peel Adhesion

78 oz/in

View 

180° Peel Adhesion

9.7 N/cm (89 oz/in)

View 

180° Peel Adhesion

89 oz/in

View 

180° Peel Adhesion

5.5 N/cm (50 oz/in)

View 

180° Peel Adhesion

50 oz/in

View 

180° Peel Adhesion

4.7 N/cm (43 oz/in)

View 

180° Peel Adhesion

43 oz/in

View 

180° Peel Adhesion

9.6 N/cm (88 oz/in)

View 

180° Peel Adhesion

88 oz/in

View 

180° Peel Adhesion

5.5 N/cm (50 oz/in)

View 

180° Peel Adhesion

50 oz/in

View 

90° Peel Adhesion

8.9 N/cm (81 oz/in)

View 

90° Peel Adhesion	
81 oz/in	
View	✓
90° Peel Adhesion	
6.4 N/cm (59 oz/in)	
View	✓
90° Peel Adhesion	
59 oz/in	
View	✓
90° Peel Adhesion	
5.1 N/cm (47 oz/in)	
View	✓
90° Peel Adhesion	
47 oz/in	
View	✓
90° Peel Adhesion	
7.9 N/cm (72 oz/in)	
View	✓
90° Peel Adhesion	
72 oz/in	
View	✓
90° Peel Adhesion	
4.2 N/cm (38 oz/in)	
View	✓
90° Peel Adhesion	
38 oz/in	
View	✓
90° Peel Adhesion	
4.4 N/cm (40 oz/in)	
View	✓
90° Peel Adhesion	
40 oz/in	
View	✓
Liner Release	
5 to 70 g/2 in	
View	✓
180° Peel Adhesion	
5.9 N/cm (54 oz/in)	
View	✓
180° Peel Adhesion	
54 oz/in	

View 

180° Peel Adhesion

5.8 N/cm (53 oz/in)

View 

180° Peel Adhesion

53 oz/in

View 

90° Peel Adhesion

6.9 N/cm (63 oz/in)

View 

90° Peel Adhesion

63 oz/in

View 

90° Peel Adhesion

7.1 N/cm (65 oz/in)

View 

90° Peel Adhesion

65 oz/in

View 

90° Peel Adhesion

3.2 N/cm (29 oz/in)

View 

90° Peel Adhesion

29 oz/in

View 

90° Peel Adhesion

7.6 oz/in (69 oz/in)

View 

90° Peel Adhesion

69 oz/in

View 

90° Peel Adhesion

3 N/cm (27 oz/in)

View 

90° Peel Adhesion

27 oz/in

View 

90° Peel Adhesion

3.2 N/cm (30 oz/in)

View 

90° Peel Adhesion

30 oz/in

View 

90° Peel Adhesion

4 N/cm

View 

Available Sizes

Finished labels should be stored in plastic bags.

Note

**Calculated using averages of different powder coated surfaces.

Typical Environmental Performance

Property Values Additional Information
Chemical and Environmental Exposure
The properties defined are based on four hour immersions at room temperature (72°F/22°C) unless otherwise noted. Samples were applied to stainless steel panels 24 hours prior to immersion and were evaluated one hour after removal from the solution for peel adhesion. Adhesion measured at 180° peel angle (ASTM D 3330) at 12 inches/minute.
-
Humidity Resistance
24 hours at 100°F (38°C) and 100% relative humidity: no significant change in appearance or adhesion
Temperature Resistance
300°F (149°C) for 24 hours: no significant visual change
-40°F (-40°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.

Storage and Shelf Life

Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.
If stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

Industry Specifications

UL Recognized (File MH11410)
CSA Accepted (File 99316)

Trademarks

3M is a trademark of 3M Company.
Alconox is a registered trademark of Alconox, Inc.
Formula 409 is a registered trademark of Clorox.

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 7903 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.

References

Property Values
3m.com Product Page
https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Sheet-and-Screen-Label-MaterialsX/?N=5002385+3291133925&rt=rud
Safety Data Sheet SDS
https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=7903

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

Product Selection and Use: Many factors beyond 3M’s control and uniquely within user’s knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer’s application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF

MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.