

September, 2019

3M™ Durable Label Material 7790-IJ

Product Description

3M™ Durable Label Material 7790-IJ water inkjet printable label-stock. This product utilizes 3M™ Adhesive 350, designed to provide good adhesion to high and low surface energy plastics and metal.



Product Features

- 350 offers good adhesion on high and low surface energy substrates, combined with good temperature resistance.
- BS5609 approved

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	
Adhesive Thickness	0.027 mm	1.1 mil
Facestock	White Polypropylene	
Facestock Thickness	0.12 mm	5 mil
Adhesive Type	350	
Liner	55# DK	
Liner Thickness	0.081 mm	3.2 mil

Note

Calipers are nominal values

Typical Performance Characteristics

Property	Values	
Minimum Application Temperature	10 °C	50 °F

180° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Substrate	Temp C	Temp F	Environmental Condition	Notes
8 N/cm	74 oz/in	20	min	Stainless Steel				
7.9 N/cm	73 oz/in	20	min	ABS				
9.3 N/cm	86 oz/in	20	min	Polycarbonate (PC)				
4.9 N/cm	45 oz/in	20	min	Polypropylene (PP)				
9.4 N/cm	87 oz/in	72	hr	Polycarbonate (PC)	23C	72F	50%RH	12 in/min (300 mm/min)
9.3 N/cm	86 oz/in	72	hr	ABS	23C	72F	50%RH	12 in/min (300 mm/min)
7.3 N/cm	67 oz/in	72	hr	Polypropylene (PP)	23C	72F	50%RH	12 in/min (300 mm/min)
10 N/cm	92 oz/in	72	hr	Stainless Steel	23C	72F	50%RH	12 in/min (300 mm/min)
1.3 N/cm	12 oz/in	72	hr	Stainless Steel	37C	100F	100%RH	

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Typical Performance Characteristics (continued)

180° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Substrate	Temp C	Temp F	Environmental Condition	Notes
9.3 N/cm	86 oz/in	72	hr	Polycarbonate (PC)	37C	100F	100%RH	
7.6 N/cm	70 oz/in	72	hr	Polypropylene (PP)	37C	100F	100%RH	
9.7 N/cm	89 oz/in	72	hr	ABS	37C	100F	100%RH	

Property: 180° Peel Adhesion
Method: ASTM D3330

Available Sizes**Packaging**

Finished labels should be stored in plastic bags.

Special Considerations

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

**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 41°F (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.

Processing

Printing:
The face-stock is designed for water inkjet printing.

Handling/Application Information**Application Examples**

- Durable applications requiring color on demand
- BS5609 approved

Printing

Facestock is suitable to be printed via water inkjet. Black and red passes BS5609 Section 3 with Durabrite Ultra ink printed with C3500, C831, or C7500 press. Black and red also passes with Ultrachrome DL on C7500G press.

Storage and Shelf Life

Store at 70 °F and 50 % relative humidity. The product can be stored up to 24 months from date of manufacturing.

Industry Specifications

BS5609

References**3m.com Product Page**

https://www.3m.com/3M/en_US/company-us/search/?Ntt=7790-IJ

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Family Group

	7790-IJ	7850-IJ	7882-IJ	FP033-IJ	PG0305
Adhesive Thickness (mm)	0.027	0.027	0.02	0.035	0.046
Facestock	White Polypropylene	White Polyester	White Polyester	White Polypropylene	White Polyester
Facestock Thickness (mm)	0.12	0.075	0.075	0.12	0.075
Adhesive Type	350	350	400	P1480	G1120
Liner	55# DK	55# DK	55# DK	50# SC	50# SC
Liner Thickness (mm)	0.081	0.081	0.081	0.078	0.078

ISO Statement

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

Information

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