



Technical Data Sheet

3M™ Clear Polyester Durable Label Material
FM1542



[Product Details](#)



[Regulatory Info/SDS](#)

Product Description

3M™ Clear Polyester Durable Label Material FM1542 is a durable, high performance material that offers thermal stability and moisture resistance. This label product utilizes 3M™ Adhesive R3500, which is designed for use on smooth surfaces such as glass, metal and plastic (including polystyrene) and offers UV resistance, initial tack, and long term adhesion with clean removability and is an alternative to static cling.

Note: As a removable adhesive, performance may vary depending upon the substrate to which it is applied. Therefore, extensive testing should be conducted prior to use and textured surfaces should be avoided. Not appropriate for children's toy or sticker applications.

Product Features

- initial tack.
- Long term adhesion with clean removability.
- Repositionable.
- UV resistance.
- Liner is designed for high-speed die cutting and matrix stripping. Not recommended for sheet on press applications.

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	R3500 Rem. 16
Facestock	Clear Polyester TC
Conformability	Semi-rigid - Label is suitable for flat or slightly curved surfaces.
Adhesive Coat Weight	1.55 g/100 in ² ± 10%

Attribute Name	Value
Facestock Thickness	0.051 mm (2 mil)
Liner	50# SC semi-bleached super calendered kraft sheet
Liner Thickness	0.079 mm (3.1 mil)

Construction Tested

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 0.9 mil of adhesive on a polished stainless steel panel.

Typical Performance Characteristics

Test Method: TLMI

Attribute Name	Temperature	Substrate	Value
180° Peel Adhesion	23 °C (73 °F)	Stainless Steel	0.53 N/cm (4.8 oz/in) ¹
Liner Release	23 °C (73 °F)		15 — 50 g/2 in ²
Loop Tack			8.8 N/cm (8 oz/in) ¹

¹ 304 mm/min (12 in/min)

² 180° removal, 300 in/min

Attribute Name	Value
Application Temperature	5 — 43 °C (40 — 110 °F)
Long Term Temperature Resistance	68 °C (155 °F) ¹
Minimum Long Term Temperature Resistance	-29 °C (-20 °F) ¹

¹ Long Term (day, weeks)

Attribute Name	Value
Note	Calipers are nominal values

Printing

Gloss topcoat is designed to be printable with a variety of film inks and thermal transfer ribbons. The following inks and thermal transfer ribbons have been evaluated and found to give adhesion when tested with 3M™ Tape 610 and 3M™ Tape 810. However, press conditions vary and proper evaluation using your specific conditions is critical and highly recommended for successful ink and ribbon adhesion.

Supplier UV Inks Ink Series Printing Process
XSYS Print Solutions UNV80071 Letterpress
USC50022 Screen
USC10031 Screen
Environmental Inks Ultra Kote 1800 OPV Flexo
Nazdar PSST-3952 Screen
Norcote 02-022, 80049, 02304, 021019 Screen

Water Based
XSYS Print Solutions HMF80071 Flexo
HMF90100 Flexo
MHF30004 Flexo
Water Ink Technologies WFLO 42976 Flexo
Environmental Inks Aqua Polyscreen Plus Flexo
Aqua Poly Cup Flexo
Wykoff Inks SCF 6551 Flexo

Solvent Based
Siegwerk Ink FCTB65L2 Flexo
FCTD65L4 Flexo
FCTE65L3 Flexo
FCTH65L5 Gravure
Nazdar GV124 Screen

Thermal Transfer Ribbon Supplier Ribbon Series Ribbon Type
Armor AXR7 + Resin
DNP W137-C Wax
M-250 Wax/Resin
R510-W Resin
iimak SP330, DC400 Resin
Prime Mark, PM350 Wax/Resin
Ricoh B110A Wax/Resin
BC110C Resin
Sony 3022, 4085 Plus Wax
4070 Resin (UV+)
4075 Resin

Handling/Application Information

Application Examples

Pre-mask/paint masking applications.

Storage and Shelf Life

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

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.

ISO Statement

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

3M™ Industrial Adhesives and Tapes Division
3M Center, St. Paul, MN 55144-1000
3M.com/iatd

3M is a trademark of 3M Company.
©3M 2024 (9/24)