



Technical Data Sheet

3M™ Scotch® ATG Tape 969



Additional Info



Regulatory
Info/SDS

Product Description

3M™ Scotch® ATG 969 with 3M™ Adhesive 300 is a reverse wound version of standard 3M Adhesive Transfer Tape 950 for use in the Scotch® ATG hand-held dispensers. This pressure sensitive acrylic adhesive family features excellent initial adhesion. This tape is reinforced with discrete glass fibers, which is important for roll stability in narrow widths and resists edge oozing. This adhesive is an excellent choice for applications which require adhesion to metals, high surface energy and low surface energy plastics.

Product Features

- A quick & controlled method of applying Scotch® ATG adhesive transfer tapes while simultaneously rewinding the liner into the applicator.
- Provides excellent adhesion to stainless steel, ABS and polypropylene.
- Offers high initial adhesion (quick stick).
- Reinforced with (or contains) discrete glass fibers, which limits elongation, provide structure and is important for roll stability in narrow widths and resists edge oozing.
- Low odor for improved working environment.
- Available in non-ATG format as well, also using the 300 adhesive.

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	Test Method	Value
Adhesive Type		300 Fibered Acrylic
Total Tape Thickness	ASTM D3652	0.13 mm (5 mil)
Liner		58# Glassine
Liner Thickness		0.08 mm (3.2 mil)
Primary Liner Color		Tan

Typical Performance Characteristics

180° Peel Adhesion

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

Dwell Time	Temperature	Substrate	Value
20 min	23 °C (73 °F)	Stainless Steel	15.9 N/cm (145 oz/in) ¹
72 h	23 °C (73 °F)	Stainless Steel	15.9 N/cm (145 oz/in) ¹
72 h	23 °C (73 °F)	ABS	14.3 N/cm (131 oz/in) ¹
72 h	23 °C (73 °F)	Polypropylene (PP)	16.2 N/cm (148 oz/in) ¹
72 h	70 °C (158 °F)	Stainless Steel	18.5 N/cm (169 oz/in) ¹

¹ 300 mm/min (12 in/min)

Substrate: Stainless Steel
 Temperature: 32 °C (90 °F)
 Dwell Time: 72 h
 Backing: 2 mil Aluminum Foil
 Environmental Condition: 90 %RH

Attribute Name	Test Method	Value
180° Peel Adhesion	ASTM D3330	16.6 N/cm (152 oz/in) ¹

¹ 300 mm/min (12 in/min)

90° Peel Adhesion

Backing: 2 mil Aluminum Foil
 Test Method: ASTM D3330

Dwell Time	Temperature	Substrate	Value
20 min	23 °C (73 °F)	Stainless Steel	8.8 N/cm (81 oz/in) ¹
72 h	23 °C (73 °F)	Stainless Steel	10.3 N/cm (94 oz/in) ¹
72 h	23 °C (73 °F)	ABS	9.0 N/cm (82 oz/in) ¹
72 h	23 °C (73 °F)	Polypropylene (PP)	9.5 N/cm (87 oz/in) ¹
72 h	70 °C (158 °F)	Stainless Steel	11.9 N/cm (109 oz/in) ¹

¹ 300 mm/min (12 in/min)

Substrate: Stainless Steel
 Test Condition: 500 g
 Test Method: ASTM D3654

Attribute Name	Value
Short Term Temperature Resistance	49 °C (120 °F) ¹
Long Term Temperature Resistance	Not intended for elevated temperatures ²

¹ Maximum temperature where tape supports indicated load per 6.5cm² (1 in²) in static shear for 60 minutes.

² Maximum temperature where tape supports indicated load per 6.5cm² (1 in²) in static shear for 10,000 minutes.

Static Shear

Substrate: Stainless Steel
 Dwell Time: 72 h
 Test Method: ASTM D3654

Temperature	Test Condition	Backing	Value
23 °C (73 °F)	1000 g	2 mil Aluminum Foil	1,200 min ¹
23 °C (73 °F)	250g	2 mil Aluminium Foil	10,000 min ¹
23 °C (73 °F)	100g	2 mil Aluminium Foil	10,000 min ¹
70 °C (158 °F)	250g	2 mil Aluminium Foil	25 min ¹
70 °C (158 °F)	100g	2 mil Aluminium Foil	200 min ¹

¹ 25 x 25 mm (1 in x 1 in) sample area, test terminated after 10,000 minutes

Typical Environmental Performance

90° Peel Adhesion

Substrate: Stainless Steel
Backing: 2 mil Aluminum Foil
Test Method: ASTM D3330

Dwell Time	Temperature	Environmental Condition	Value
72 h	23 °C (73 °F)	Control	100 % of control ¹
1 h	23 °C (73 °F)	Isopropyl alcohol	88 % of control ¹
1 h	23 °C (73 °F)	Acetone	74 % of control ¹
1 h	23 °C (73 °F)	Gasoline	77 % of control ¹
4 h	23 °C (73 °F)	Weak Acid (pH 4)	88 % of control ¹
4 h	23 °C (73 °F)	Weak Base (pH 10)	88 % of control ¹
72 h	23 °C (73 °F)	Water	105 % of control ¹
72 h	23 °C (73 °F)	Salt Water (5% by weight)	80 % of control ¹
72 h	32 °C (90 °F)	90 %RH	103 % of control ¹
72 h	49 °C (120 °F)	Oil (10W30)	121 % of control ¹
96 h		Temperature Cycling: 4 Hours at 70 °C (158 °F). 4 Hours at -29 °C (-20 °F). 16 Hours at 23 °C (73 °F). Repeat four times	149 % of control ¹

¹ 300 mm/min (12 in/min)

Electrical and Thermal Properties

Midpoint Tg

Attribute Name	Test Method	Value
Glass Transition Temperature (Tg)	ASTM E1356	-29 °C ¹

¹ Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 10 °C per minute. Second heat values given.

Handling/Application Information

Application Examples

- Long term bonding of graphic nameplates and overlays to surfaces such as metal and low surface energy plastics in the aerospace, medical and industrial equipment, automotive, appliance and electronic markets.
- Bonding metal nameplates and rating plates in the aerospace, medical and industrial equipment, automotive, appliance and electronic markets.
- Lamination to foam for gasket application.
- 2 mil thick tapes may generally be used for joining materials that are relatively smooth, thin and have low residual stress. For materials with a rough or textured surface, the thicker adhesive film of the 5 mil tapes would be more appropriate for evaluation.

Application Techniques

For maximum bond strength (during installation of the final part) the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane (for oily surfaces) or isopropyl alcohol for plastics. Use reagent grade solvents since common household materials like rubbing alcohol frequently contain oils to minimize the drying effect on skin. These oils can interfere with the performance of a pressure-sensitive adhesive.

Consult solvent manufacturers MSDS for proper handling and storage instructions. Also, use disposable wipes that do not contain oils, to remove the cleaning solvents.

Ideal adhesive application temperature range is 21°C to 38°C (70°F to 100°F). Initial application to surfaces at temperatures below 10°C (50°F) is not recommended for most pressure sensitive adhesives because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is satisfactory. For more specific information, contact our toll free 3M sales assistance number at 1-800-362-3550.

It is necessary to provide pressure during lamination (1.5-20 PLI recommended) and during final part installation (10-15 PLI) to allow to adhesive the come into direct contact with the substrate. Using a hard edged plastic tool, which is the full width of the laminated part, helps to provide the necessary pressure at the point of lamination. Heat can increase bond strength when bonding to metal parts (generally this same increase is observed at room temperature over longer times, weeks). For plastic parts, the bond strength is not enhanced with the addition of heat.

Application Equipment

To apply adhesives in a wide web format, lamination equipment is required to ensure acceptable quality. To learn more about working with pressure-sensitive adhesives please refer to technical bulletin, Lamination Techniques for Converters of Laminating Adhesives (70-0704-1430-8).

For additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

Industry Specifications

[EN 45545 test report for details \(ISO 5658-2, ISO 5660-1\)](#)

FDA Statement

This product might be suitable for use in indirect food contact applications. Please see the applicable Regulatory Data Sheet for more information relating to FDA compliance.

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

ATG roll dimensions is limited by applicator type and product thickness. Products are available in 1/4", 1/2", 3/4", and 2" widths.

Applicators available: ATG 700, ATG 714, ATG 752C, ATG 3662

Attribute Name	Value
Core Size (ID)	25.4 mm (1 in)
Normal Slitting Tolerance	± 0.8 mm (± 1/32 in)
Maximum Length	Available in 18 yd, 36 yd, 60 yd (60 yd only for 2 mil)
Available Width	6.35 mm (0.25 in), 12.7 mm (0.5 in), 19.05 mm (0.75 in), 50.8 mm (2 in)

Recognition/Certification

TSCA: This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements

MSDS: These products are not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, these products should not present a health and safety hazard. However, use or processing of these products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.

UL: This product is UL recognized under the following files:

- File PGGU2.MH26206, Marking & Labeling System Materials - Component, UL 969

If you require official recognition of any 350 adhesive under either UL 969 or UL 746C, please contact 3M-customer service at 1-800-362-3550.

For more information on the UL Certification, please visit the website at <http://www.3m.com/converter>, select UL Recognized Materials, and then select the specific product area.

Note: One of 3M's core values is to respect our social and physical environment. 3M is committed to comply with ever-changing, global, regulatory and consumer environmental, health, and safety (EHS) requirements. As a service to our customers, 3M is providing information on the regulatory status of many 3M products. Further regulation information including that for OSHA, USCPSP, FDA, California Proposition 65, REACH and RoHS, can be found at 3M.com/regs.

Automotive Disclaimer

Select Automotive Applications:

This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

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 2016 (3/16)