

# 3M™ Adhesive Transfer Tape 950

Last Revision Date: Dec, 2020



## Product Description

3M™ Adhesive Transfer Tapes with 3M™ Adhesive 300 offer excellent adhesion to a wide variety of surfaces, including low surface energy plastics and foam. This pressure sensitive medium firm acrylic adhesive family features very high initial adhesion with good holding power and is available in several thicknesses for a wide variety of surface bonding and provides a variety of liner configurations to help ensure excellent process flexibility.






## 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	Acrylic	
Liner	58# Glassine paper	
Liner Thickness	0.08 mm	
Liner Color	Tan, No Print	<a href="#">View</a>
Test Name: Primary		
Total Tape Thickness	5 mil (0.13 mm)	<a href="#">View</a>
Test Method: ASTM D3652		
Total Tape Thickness	0.13 mm	<a href="#">View</a>
Test Method: ASTM D3652		
Liner Print	None	
Liner Thickness	3.2 mil	

## Typical Performance Characteristics

Property	Values	Additional Information
90° Peel Adhesion	8.1 N/cm	<a href="#">View</a> 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 15  Dwell Time Units: min  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: Stainless Steel  Backing: 2 mil Aluminum Foil</p>		
90° Peel Adhesion	74 oz/in	<a href="#">View</a> 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 15  Dwell Time Units: min  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: Stainless Steel  Backing: 2 mil Aluminum Foil</p> <p>Notes: 12 in/min (300 mm/min)</p>		
90° Peel Adhesion	3.7 N/cm (34 oz/in)	<a href="#">View</a> 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 15  Dwell Time Units: min  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: ABS  Backing: 2 mil Aluminum Foil</p> <p>Notes: 12 in/min (300 mm/min)</p>		
90° Peel Adhesion	34 oz/in	<a href="#">View</a> 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 15  Dwell Time Units: min  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: ABS  Backing: 2 mil Aluminum Foil</p> <p>Notes: 12 in/min (300 mm/min)</p>		
90° Peel Adhesion	6.6 N/cm (60 oz/in)	<a href="#">View</a> 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 15  Dwell Time Units: min  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: Polypropylene (PP)  Backing: 2 mil Aluminum Foil</p> <p>Notes: 12 in/min (300 mm/min)</p>		
90° Peel Adhesion	60 oz/in	

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15  
 Dwell Time Units: min  
 Temp C: 23C  
 Temp F: 72F  
 Environmental Condition: 50%RH  
 Substrate: Polypropylene (PP)  
 Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

9.4 N/cm

View 

Test Method: ASTM D3330

Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

86 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72  
 Dwell Time Units: hr  
 Temp C: 23C  
 Temp F: 72F  
 Environmental Condition: 50%RH  
 Substrate: Stainless Steel  
 Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.4 N/cm (40 oz/in)

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72  
 Dwell Time Units: hr  
 Temp C: 23C  
 Temp F: 72F  
 Environmental Condition: 50%RH  
 Substrate: ABS  
 Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

40 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72  
 Dwell Time Units: hr  
 Temp C: 23C  
 Temp F: 72F  
 Environmental Condition: 50%RH  
 Substrate: ABS  
 Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

6.8 N/cm (62 oz/in)






View 

Test Method: ASTM D3330

Dwell/Cure Time: 72  
 Dwell Time Units: hr  
 Temp C: 23C  
 Temp F: 72F  
 Environmental Condition: 50%RH

Substrate: Polypropylene (PP)  
Backing: 2 mil Aluminum Foil



Notes: 12 in/min (300 mm/min)



90° Peel Adhesion	62 oz/in	View 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polypropylene (PP) Backing: 2 mil Aluminum Foil</p> <p>Notes: 12 in/min (300 mm/min)</p>		
Short Term Temperature Resistance	250 °F (121 °C)	View 
<p>Test Condition: Short Term (minutes, hour)</p>		
Short Term Temperature Resistance	121 °C	View 
<p>Test Condition: Short Term (minutes, hour)</p>		
Long Term Temperature Resistance	70 °C (158 °F)	View 
<p>Test Condition: Long Term (day, weeks)</p>		
Long Term Temperature Resistance	158 °F	View 
<p>Test Condition: Long Term (day, weeks)</p>		

## Available Sizes

48

## Electrical and Thermal Properties

Property	Values	Additional Information
Dielectric Constant 1KHz	3.21	View 
<p>Test Method: ASTM D150</p> <p>Temp C: 23C Temp F: 72F Test Condition: 1 KHz</p>		
Dissipation Factor	0.04	
Dielectric Strength	340 V/mil	View 
<p>Test Method: ASTM D149</p> <p>Test Condition: 500 vac, rms[60 hz/sec]</p>		

Coefficient of Thermal Expansion	20 x 10 <sup>-5</sup> m/m/°C	View 
Test Method: ASTM D696		
Test Condition: First Heat		
Coefficient of Thermal Expansion	58 x 10 <sup>-5</sup> m/m/°C	View 
Test Method: ASTM D696		
Test Condition: Second Heat		

## Typical Environmental Performance

Humidity Resistance – High humidity has a minimal effect on adhesive performance. Bond strength (is generally higher/shows no significant reduction) after exposure for 7 days at 90°F (32°C) and 90% relative humidity.

UV Resistance – When properly applied, nameplates and decorative trim parts are not adversely affected by outdoor exposure.

Water Resistance – Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength (increases/is maintained).

Temperature Cycling Resistance – High bond strength (is maintained /increases) after cycling four times through:

4 hours at 158°F (70°C)

4 hours at -20°F (-29°C)

4 hours at 73°F (22°C)

Chemical Resistance – When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids and alkalis.

Bond Build-up: The bond strength of 3M™ Adhesive 300 increases as a function of time and temperature

Temperature/Heat Resistance: Adhesive 300 is usable for short periods (minutes, hours) at temperatures up to 250°F (120°C) and for intermittent longer periods (days, weeks) up to 150°F (65°C).

Lower Temperature Service Limit: -40F (-40°C).

## Storage and Shelf Life

It is suggested that products are stored at room temperature conditions of 70°F (21°C) and 50% relative humidity.

If stored properly, product retains its performance and properties for 24 months from date of manufacture.

## Industry Specifications

[/17352770/3m-950-en45545-2-en.PDF" target="\\_blank"> EN 45545 test report for details \(ISO 5658-2, ISO 5660-1\)](#)

## Trademarks

3M is a trademark of 3M Company

## 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.

### 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.

It is necessary to provide pressure during lamination (1.5-20 PLI recommended) and during final part installation (10-15 PLI) to allow the adhesive to 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.

The ideal adhesive application temperature range is 70°F (21°C) to 100°F (38°C). Application is not recommended if the surface temperature is below 50°F (10°C) because the adhesive becomes too firm to adhere readily. Once properly applied, at the recommended application temperature, low temperature holding is generally satisfactory (please refer to the Typical Physical Properties and Performance Characteristics section).

When bonding a thin, smooth, flexible material to a smooth surface, it is generally acceptable to use 2 mils of adhesive. If a texture is visible on one or both surfaces, the 5 mil adhesive would be suggested. If both materials are rigid, it may be necessary to use a thicker adhesive to successfully bond the components. 3M™ VHB™ Acrylic Foam Tapes may be required (please refer to data page 70-0709-3863-7).

#### 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.

#### References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/~3M-Adhesive-Transfer-Tape-950/?N=5002385+3293241837&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/~3M-Adhesive-Transfer-Tape-950/?N=5002385+3293241837&amp;rt=rud</a>
Safety Data Sheet SDS	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=950">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=950</a>

#### Family Group

Link Tags:



Products	Adhesive Type	Liner	Liner Thickness	Liner Color	Total Tape Thickness	Short Term Temperature Resistance	Long Term Temperature Resistance	Color
927	Acrylic	60# Densified Kraft	0.09 mm	Tan, No Print	0.05 mm	121 °C	158 °F	N/A
950	Acrylic	58# Glassine paper	0.08 mm	Tan, No Print	0.13 mm	121 °C	158 °F	N/A
950EK	Acrylic	78# Extensible Kraft	0.14 mm	White, No Print	0.13 mm	121 °C	158 °F	N/A
9458	Acrylic	55# Densified Kraft	0.08 mm	White, No Print	0.025 mm	121 °C	158 °F	N/A
9471	Acrylic	60# Densified Kraft, tan with green "3M" print	0.09 mm	Tan, Green Print, "3M"	0.05 mm	121 °C	158 °F	N/A
9472	Acrylic	60# Densified Kraft, tan with green "3M" print	0.09 mm	Tan, Green Print, "3M"	0.13 mm	121 °C	158 °F	N/A

9671	Acrylic	83# Polycoated Kraft, tan with green "3M" print	0.16 mm	Tan, Green Print, "3M"	0.05 mm	121 °C	158 °F	N/A
9672	Acrylic	83# Polycoated Kraft, tan with green "3M" print	0.16 mm	Tan, Green Print, "3M"	0.13 mm	121 °C	158 °F	N/A
9459W	#300 "Hi-Strength" Acrylic	55# Densified Kraft	0.08 mm	N/A	0.0375 mm	121 °C	158 °F	White

## 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](http://www.3M.com).