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3M™ Adhesive Transfer Tapes with Specialty Acrylic Adhesive

9379, 9380

Technical Data Sheet

Product Description

3M™ Adhesive Transfer Tapes made with modified acrylic adhesive are designed to perform in the presence of harsh chemicals like jet fuel or hydraulic fluid and to have a wide operating temperature range.

3M™ Adhesive Transfer Tapes 9379 and 9380 are visually clear adhesives coated onto a clear polyester removable liner. The product comes in rolled tape format of varying width.

Environmental Performance

The properties defined are based on the attachment of impervious materials (such as aluminum) to an aluminum test surface.

Bond Build-up: The bond strength of 3M™ 9379/9380 adhesive increases as a function of time and temperature.

Humidity Resistance: High humidity has a minimal effect on adhesive performance. Bond strengths are generally higher after exposure for 7 days at 90°F (32°C) and 90% relative humidity.

U.V. Resistance: When properly applied, the adhesive bond between impervious parts is not adversely affected by outdoor exposure.

Temperature Cycling Resistance: Bond strength generally increases after cycling four times through: 4 hours at 158°F (70°C) followed by 4 hours at -20°F (-29°C) followed by 16 hours at 72°F (23°C).

Chemical Resistance: When properly applied, the adhesive bond between impervious parts will hold securely after exposure to numerous chemicals including JP4 jet fuel and commonly used types of Skydrol® hydraulic fluid.

Heat Resistance: The 3M™ 9379 adhesive is usable for short periods at temperatures up to 450°F (232°C) and for longer periods up to 300°F (149°C). Low Temperature Service: -40°F (-40°C). Bonded substrates should be evaluated for continuous low temperature exposure service.

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product	Adhesive Thickness	Liner Type Liner Thickness
9379	1.7 mils (43 µm)	Polyester Film (PET) 2.0 mils (51 µm)
9380	5.0 mils (127 µm)	Polyester Film (PET) 2.0 mils (51 µm)

I. Peel Adhesion: ASTM D-3330 (Modified: 2 mil (51 µm) aluminum foil backer)

Stainless Steel	20 Minute Dwell		72 Hour Dwell	
Product / Peel Angle	90°	180°	90°	180°
9379	92 oz/in 25 N/25mm	78 oz/in 21 N/25mm	91 oz/in 25 N/25mm	97 oz/in 27 N/25mm
9380	79 oz/in 22 N/25mm	94 oz/in 26 N/25mm	133 oz/in 37 N/25mm	132 oz/in 37 N/25mm

Aluminum	20 Minute Dwell	72 Hour Dwell	Ultimate Bond
Product / Peel Angle	90°	90°	90°
9379	64 oz/in 17 N/25mm	99 oz/in 27 N/25mm	154 oz/in 42 N/25mm
9380	69 oz/in 19 N/25mm	109 oz/in 30 N/25mm	214 oz/in 59 N/25mm

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II. Static Shear Strength – Stainless Steel (ASTM D3654)

9379

Temperature	Size	Weight	Minutes
72° F (23° C) 50% RH	1 in. x 1 in. (25mm x 25mm)	2000 grams	10,000*
158 F° (70° C)	1 in. x 1 in. (25mm x 25mm)	1000 grams	10,000*
200° F (93° C)	1 in. x 1 in. (25mm x 25mm)	1000 grams	10,000*
350° F (176° C)	1 in. x 1 in. (25mm x 25mm)	500 grams	10,000*

*Test stopped at 10,000 minutes

9380

Temperature	Size	Weight	Minutes
72° F (23° C) 50% RH	1 in. x 1 in. (25mm x 25mm)	2000 grams	8,310
200° F (93° C)	1 in. x 1 in. (25mm x 25mm)	1000 grams	10,000*
350° F (176° C)	1 in. x 1 in. (25mm x 25mm)	500 grams	10,000*

*Test stopped at 10,000 minutes

Storage and Shipping Information
The shelf life for both 9379 and 9380 Adhesive Transfer Tapes is 24 months from the date of manufacture when stored in the original unopened 3M packaging at a maximum temperature of 80°F.

Handling Information
When preparing for lamination operations, it is recommended that the product be brought into the processing area and allowed to equilibrate to the ambient environment for a minimum of 24 hours prior to use.

Precautionary Information
Refer to Product Label and Safety Data Sheet (SDS) for health and safety information before using this product. For additional health and safety information, please visit www.3m.com/MSDS or call 1-800-364-3577 or (651) 737-6501.

Additional Information
In the U.S. call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M representative.

Authorization to Use
Ensure products meet all applicable specifications, standards, and maintenance manual requirements for the platform being worked on and validate all aircraft approvals against current technical document.

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