October, 2013

3M™ Adhesive Transfer Tape 9505

Product Description

3M™ Industrial Acrylic Adhesive 220 is an economical choice for most general industrial bonding in metal, painted metal, and high surface energy plastic applications.



Product Features

- Up to 350°F short-term heat resistance
- Good chemical resistance
- Good shear strength

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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		Attribute Modifier
Adhesive Thickness	0.12 mm	4.9 mil	
Liner	58# Polycoated Kraft Paper (PCK)		
Liner Color	Tan		Primary
Liner Thickness	0.11 mm	4.2 mil	

Typical Performance Characteristics

90° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Substrate	Notes
5.8 N/cm		15	min	Stainless Steel	
53 oz/in		15	min	Stainless Steel	12 in/min (300 mm/min)
11 N/cm	98 oz/in	72	hr	Stainless Steel	12 in/min (300 mm/min)
7.1 N/cm	65 oz/in	72	hr	ABS	12 in/min (300 mm/min)
9.7 N/cm	89 oz/in	72	hr	Glass	12 in/min (300 mm/min)
7.1 N/cm	63 oz/in	72	hr	Polycarbonate (PC)	12 in/min (300 mm/min)

Property: 90° Peel Adhesion
Method: ASTM D3330
Temp C: 22C
Temp F: 72F
Environmental Condition: 52%RH
Backing: 2 mil Aluminum Foil

Property	Values	Test Condition	Notes
Static Shear	5000 min	2000g @ Room Temperature	1in x 1in
Static Shear	4000 min	10000 @ 70°C (158°F)	1in x 1in

Available Sizes

Property	Values		Notes
Master Width	1.22 m	48 in	More sizes may be available. Please call 800-223-7427 or talk to your local 3M representative for more information.

Environmental Resistance

Humidity Resistance – High humidity has a minimal effect on adhesive performance. Bond strength 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 is maintained.
Temperature Cycling Resistance – High bond strength is maintained 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™ Industrial Acrylic Adhesive 220 increases as a function of time and temperature
Temperature/Heat Resistance: 3M™ Industrial Acrylic Adhesive 220 is usable for short periods (minutes, hours) at temperatures up to350°F (177°C) and for intermittent longer periods (days, weeks) up
to 250°F (121°C).
Lower Temperature Service Limit: 40°F (-40°C). The glass transition temperature, TG, for 3M™ Industrial Acrylic Adhesive 220 is -31°F (-35°C). Many applications survive below this temperature. Factors to consider are: the materials being bonded, the dwell at RT before cold exposure and the stresses below the TG (ie. expansion/contraction stresses, impact). Optimum conditions are: bonding HSE materials, longer time at RT before cold exposure and little or no stress below the glass transition temperature.

Handling/Application Information

Application Ideas

- Attaching nameplates, appliqués, and decorative trim to metal and high surface energy plastics
- Laminating to sub-surface printed polycarbonate or polyester graphic overlay materials
- Used in the automotive, appliance and electronics industries for cost-effective, long-term bonding applications

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.

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Adhesive-Transfer-Tape-9505?N=5002385+3293240975&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9505

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Family Group

	9502	9505	9552	9555
Liner Color Attribute Modifier: Primary	Tan	Tan	Tan	Tan
Adhesive Thickness (mm)	0.06	0.12	0.06	0.12
Liner	58# Polycoated Kraft Paper (PCK)	58# Polycoated Kraft Paper (PCK)		
Liner Thickness (mm)	0.11	0.11		

ISO Statement

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

Bottom Matter Images

[Image 4]
[Image 5]

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: 3M has not prepared a MSDS for this product which is not subjected 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, this product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.
UL: These products have been recognized by Underwriters Laboratories, Inc. under UL 969. For more information on the UL Certification, please visit the website at http://www.3M.com/converter, select UL Recognized Materials, then select the specific product area.
Military: Meets Mil-P-19834
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Information

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