

December, 2017

3M™ Adhesive Transfer Tape 9457

Product Description

3M™ Adhesive Transfer Tapes 463, 465, 9457, 9665 are made with 3M™ Acrylic Adhesive 400 and are ideal for bonding together a wide variety of surfaces, including paper, cardboard, metals, glass, and HSE (high surface energy) plastics. This pressure sensitive acrylic adhesive family features excellent initial adhesion to HSE materials with good holding power at lower temperatures. 3M™ Adhesive Transfer Tapes 463, 465 and 9665 contain discrete glass fibers to aid in processing and handling of the product, 3M™ Adhesive Transfer Tape 9457 does not contain fibers.

This adhesive family offers constructions available in 1 mil and 2 mil thicknesses and provide a variety of liner configurations to help ensure optimum process flexibility.

Product Features

- Tapes meet the requirements of U.S. Government specification MIL-P-19834B, Type I.
- 3M™ Adhesive Transfer Tape 9457 is designed for use with sub-surface graphics printing on polyester films and custom tamper-indicating labels.



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		Notes
Adhesive Thickness	0.025 mm	1.0 mil	The thickness listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc. While past data pages have listed nominal thicknesses, the coat weight (and theoretical caliper) has not changed.
Liner Material	55# Densified Kraft		
Liner Thickness	0.08 mm	3.2 mil	The thickness listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc. While past data pages have listed nominal thicknesses, the coat weight (and theoretical caliper) has not changed.
Liner Color	White, No Print		

Typical Performance Characteristics

90° Peel Adhesion		Dwell/Cure Time
1.6 N/cm	15 oz/in	15 min @ Room Temperature
2.7 N/cm	25 oz/in	72 hr @ Room Temperature

Property: 90° Peel Adhesion
Method: ASTM D3330
Substrate: Stainless Steel
Backing: Aluminum Foil

Available Sizes

Property	Values		Notes
Master Width	1372 mm	54 in	More sizes may be available. Please call 800-362-3550 or talk to your local 3M representative for more information.

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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.

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

Bond Build-up: The bond strength of 3M™ Adhesive 400 increases as a function of time and temperature

Temperature/Heat Resistance: Adhesive 400 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: -60F (-50°C).

Handling/Application Information

Application Ideas

- High-speed flying splices on most grades of paper.
- Splicing of foils, films, fabrics.
- Laminating adhesive for foams, photos.
- Attaching metal or plastic nameplates.
- Mounting promotional items, posters.
- Core starting.

Application Techniques

- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
 - To obtain optimum adhesion, the bonding surfaces must be clean, dry, and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane.*
- *Be sure to follow manufacturer’s safety precautions and directions for use when using solvents.
- Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory

Storage and Shelf Life

Store under normal conditions of 70°F (21°C) and 50% relative humidity.

To obtain best performance, use product within two years from date of manufacture.

Industry Specifications

MIL-P-19834B, Type I

Family Group

	415	469	9420	9497	465	463	465	9457	9665	9499
Adhesive Thickness (mm)					0.05	0.05	0.05	0.025	0.05	
Liner Material					60# Densified Kraft	60# Densified Kraft	60# Densified Kraft	55# Densified Kraft	60# Polycoated Kraft	
Liner Thickness (mm)					0.09	0.09	0.09	0.08	0.11	
Liner Color					Tan, No Print	Tan, No Print	Tan, No Print	White, No Print	Tan, No Print	

3M™ Adhesive Transfer Tape 9457

References

1. 3m.com Product Page
Url: http://www.3m.com/3M/en_US/company-us/all-3m-products/~ /3M-Adhesive-Transfer-Tape-9457?N=5002385+3293241373&rt=rud
2. Safety Data Sheet
Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9457

ISO Statement

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

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550 or visit www.3M.com/adhesives. Address correspondence to: 3M Industrial Adhesives and Tapes Division, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55144-1000. Our fax number is 651-778-4244. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00

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 SDS: 3M has not prepared a SDS for this product which is not subjected to the SDS 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, Marking and Labeling Systems Materials Component. 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 19834B Type 1. 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.

Technical Information

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Product 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.

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