Adhesive Transfer Tapes

463 • 465 • 9457 • 9665

Technical Data **June 2016**

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.

Construction Information



Product	Adhesive Thickness	Liner Type Liner Thickness	Liner Color
3M™ Adhesive Transfer Tape 463	2.0 mils (0.05 mm)	60# Densified Kraft 3.5 mils (0.09 mm)	Tan, No Print
3M™ Adhesive Transfer Tape 465	2.0 mils (0.05 mm)	60# Densified Kraft, 3.5 mils (0.09 mm)	Tan, No Print
3M™ Adhesive Transfer Tape 9457	1.0 mils (0.025 mm)	55# Densified Kraft, 3.2 mils (0.08 mm)	White, No Print
3M™ Adhesive Transfer Tape 9665	2.0 mils (0.05 mm)	60# Polycoated Kraft, 4.5 mils (0.11 mm)	Tan, No Print

Note: 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.

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Typical Physical Properties and Performance Characteristics

I. 90° Peel Adhesion @ RT: ASTM D-3330 (Modified)
2 mil Aluminum Foil Backer

Substrate	Product	15 min dwell @ RT	72 hr dwell @ RT
Stainless Steel	**9457**	15 oz/in (16 N/100 mm)	25 oz/in (27 N/100 mm)
	463, 465, 9665	15 oz/in (16 N/100 mm)	25 oz/in (7 N/100 mm)

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.

Features

- Tapes meet the requirements of U.S. Government specification MIL-P-19834B, Type I.
- 3M™ Adhesive Transfer Tape 463 is designed for use with 3M automatic dispensing equipment.
- 3M™ Adhesive Transfer Tape 465 is designed for use with easy liner release for manual or hand application.
- 3M™ Adhesive Transfer Tape 9457 is designed for use with sub-surface graphics printing on polyester films and custom tamper-indicating labels.
- 3M™ Adhesive Transfer Tape 9665 is the same as 3M tape 465 but has a thicker liner for moisture stability with kiss-cutting applications.

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.

Storage

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

Shelf Life

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

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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).

Master Width

Product	Master Width
9457	54”
463, 465, 9665	48”

More sizes may be available. Please call 800-223-7427 or talk to your local 3M representative for more information.

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.

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Technical Information

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ISO 9001

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

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