3M

Splicing Tapes

415 • 465 • 469 • 9420 • 9497 • 9499

Technical Data **August, 2001**

Product Description	**Tape 415**	0.004 in. (0.10 mm) thick double-coated film tape
	Tape 465	0.002 in. (0.05 mm) thick adhesive transfer tape
	Tape 469	0.0055 in. (0.14 mm) thick double-coated tape
	Tape 9420	0.002 in. (0.05 mm) thick red double-coated film tape
	Tape 9497	0.002 in. (0.05 mm) thick red tinted adhesive transfer tape
	Tape 9499	0.002 in. (0.05 mm) thick high temperature adhesive transfer tape

Construction

Products	**Tape 415**	**Tape 465**	**Tape 469**	**Tape 9420**	**Tape 9499**	**Tape 9497**
Adhesive Type:*	400	400	330	400	430	430
Adhesive Carrier:	Polyester Film	None	Tissue	Polyester Film	None	None
Release Liner:	Tan Paper	Tan Paper	White Silicone Coated Paper	Tan Paper	Tan Paper	Tan Paper
Approximate Thickness:						
Release Liner	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.005 in. (0.13 mm)	0.004 in. (0.10 mm)	0.003 in. (0.08 mm)	0.003 in. (0.08 mm)
Tape Only	0.004 in. (0.10 mm)	0.002 in. (0.05 mm)	0.0055 in. (0.14 mm)	0.004 in. (0.10 mm)	0.002 in. (0.05 mm)	0.002 in. (0.05 mm)
Tape Color:	Clear	Clear	Light Red	Red	Clear	Light Red
Liner:	Tan 60#, Densified Kraft	Tan 60#, Densified Kraft	72# Densified Kraft	Tan 60#, Densified Kraft	Tan 60#, Densified Kraft	Tan 60#, Densified Kraft

*3M™ Adhesive 430 is a firm acrylic pressure sensitive adhesive which features both high initial adhesion and good high temperature holding power.

3M™ Adhesive 400 is a medium-firm acrylic pressure-sensitive adhesive system. It features an excellent balance of good initial adhesion (quick stick) and good shear holding power.

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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.

Products	Tape 415	Tape 465	Tape 469	Tape 9420	Tape 9497	Tape 9499
Adhesion to Steel: (ASTM D3330)	25 oz./in. (27 N/100 mm)	25 oz./in. (27 N/100 mm)	60 oz./in. (52 N/100 mm)	25 oz./in. (27 N/100 mm)	45 oz./in. (50 N/100 mm)	45 oz./in. (50 N/100 mm)
Relative High Temperature Operating Ranges:						
Long Term (days, weeks)	150°F (65°C)	180°F (82°C)	200°F (94°C)	150°F (65°C)	250°F (121°C)	300°F (149°C)
Short Term (minutes, hours)	180°F (82°C)	250°F (121°C)	350°F (180°C)	180°F (82°C)	350°F (177°C)	500°F (260°C)
Relative Solvent Resistance:	Good	Good	Medium/High	Good	Good	Good
U.V. Resistance:	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Shelf Life of Tape in Roll Form:	24 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.					

Available Sizes

Available Lengths (Subject to Minimum Order Requirements):						
Standard	36 yds. (32.9 m)	60 yds. (54.9 m)	60 yds. (54.9 m)	36 yds. (32.9 m)	60 yds. (54.9 m)	60 yds. (54.9 m)
Maximum In:						
1/4" to 3/8" widths	180 yds. (165 m)	60 yds. (54.9 m)	60 yds. See note below	180 yds. (165 m)	60 yds. (54.9 m)	60 yds. (54.9 m)
3/8" to 1/2" widths	180 yds. (165 m)	60 yds. (54.9 m)	60 yds. See note below	180 yds. (165 m)	60 yds. (54.9 m)	60 yds. (54.9 m)
1/2" to 2" widths	360 yds. (329 m)	360 yds. (329 m)	60 yds. See note below	360 yds. (329 m)	360 yds. (329 m)	360 yds. (329 m)
2" and greater	360 yds. (329 m)	360 yds. (329 m)	60 yds. See note below	360 yds. (329 m)	360 yds. (329 m)	360 yds. (329 m)
	Note: 3M tape 469 only comes in 1/2", 3/4", 1" and $1\frac{1}{2}$".					
Available Widths (Subject to Minimum Order Requirements):						
Minimum	1/4 in. (6.35 mm)	1/4 in. (6.35 mm)	1/2 in. (12.70 mm)	1/4 in. (6.35 mm)	1/4 in. (6.35 mm)	1/4 in. (6.35 mm)
Maximum	48 in. (1219 mm)	48in. (1219 mm)	2 in. (50.8 mm)	48 in. (1219 mm)	48 in. (1219 mm)	48 in. (1219 mm)
Normal Slitting Tolerance:	± 1/32 in. (0.8 mm)	± 1/32 in. (0.8 mm)	± 1/32 in (0.8 mm)	± 1/32 in. (0.8 mm)	± 1/32 in. (0.8 mm)	± 1/32 in. (0.8 mm)
Core Size (ID):	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)

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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.
- 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.

General Information

- The red color of 3M tape 9420 may cause some discoloration. The user should evaluate the tape to determine whether it is fit for the user's particular purpose.
- 3M tape 9420 is also available in a razor slit configuration which provides a non-tear feature.
- 3M tape 465 meets the requirements of U.S. Government specification MIL-P-19834B, Type I.
- 3M tape 469 has high initial adhesion, high contact heat resistance and good adhesion to a variety of paper grades and thicknesses.
- 3M tape 469 adheres well to most high energy surfaces and is ideal for bonding a variety of similar or dissimilar materials.

Application Ideas

- 3M tapes 415 and 465 can be used for high-speed flying splices and zero speed splices on most grades of paper such as newsprint, clay coated, corrugated stocks.
- 3M tape 469 is a high tack, high temperature double coated tissue tape which is light red in color for visible splices. The medium firm adhesive features good quick stick for high-speed flying splices on most grades of paper and excellent heat resistance for many high temperature drying ovens.
- 3M tape 9420 can be used for flying splices on paper and film where easy visibility for removal of spliced area is desirable.
- 3M tape 9497 is designed for resistance to high temperatures and is ideal for splicing many paper medians used by corrugators.
- 3M tape 9499 is ideal for printers who require especially high drying temperatures or who utilize long ovens. This specialty tape has extremely high air heat (oven) resistance and is ideal for zero speed automatic splicing.

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Certification/ Recognition

MSDS: 3M has not prepared MSDSs for these products which are not subject 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, the products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.

TSCA: These products are defined as articles under the Toxic Substances Control Act and therefore, are exempt from inventory listing requirements.

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/bonding. Address correspondence to: 3M Engineered Adhesives Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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ISO 9002

This Engineered Adhesives Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

3M

Engineered Adhesives Division

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