



Double Coated Film Tapes

415 • 442 • 443 • 444 • 9443 • 9589

Technical Data

March, 1997

Product Description	415	0.004 in. (0.10 mm) thick double-coated film tape
	442	0.004 in. (0.10 mm) thick double-coated film tape
	443	0.005 in. (0.13 mm) thick double-coated film tape
	444	0.004 in. (0.10 mm) thick double-coated film tape with high-tack adhesive
	9443	0.006 in. (0.15 mm) thick double-coated film tape with high-tack adhesive
	9589	0.009 in. (0.23 mm) thick double-coated film tape

Construction

Products	Tape 415	Tape 442	Tape 443	Tape 444	Tape 9443	Tape 9589
Adhesive Type:*	A-40	R-30	R-40	A-60	R-60	R-60
Adhesive Carrier:	Polyester Film	Polyester Film	Polyester Film	Polyester Film	Polyethylene Film	Polyethylene Film
Release Liner:	Tan Paper	Tan Paper	Tan Paper	Off-white Paper	Green Plaid Paper	Green Plaid Paper
Approximate Thickness: Release Liner	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.003 in. (0.08 mm)	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)
Tape Only	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.005 in. (0.13 mm)	0.004 in. (0.10 mm)	0.006 in. (0.15 mm)	0.009 in. (0.23 mm)
Tape Color:	Clear	Off-white	Clear	Clear	Clear	White

*A-40 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.

A-60 is a medium-firm acrylic pressure-sensitive adhesive system. It features very high initial adhesion and good shear holding power to a wide variety of materials including many plastics.

R-30 is a firm rubber-resin pressure-sensitive adhesive system. It features high shear holding power, good high temperature performance, good solvent resistance, and good adhesion to a wide variety of materials.

R-40 is a medium-firm rubber-resin pressure sensitive adhesive system. It features good holding power to a wide variety of materials including most plastics.

R-60 is a soft rubber-resin pressure-sensitive adhesive system. It features high initial adhesion and good holding power to a wide variety of materials.

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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. Typical surface cleaning solvents are isopropyl alcohol (rubbing alcohol) and water or heptane. **Note:** Be sure to follow the manufacturer's 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.

General Information

- Tape 415 is also available in a razor slit configuration which provides a non-tear feature.
- Tape 9589 has good adhesive anchorage and film strength offering one piece removal characteristics.

Application Ideas

• **Tape 415**

Tape 415 is ideal for bonding together a wide variety of similar and dissimilar materials such as metals, glass, wood, papers, paints, and many plastics. Some application ideas include:

- High-speed flying splices on most grades of paper such as newsprint, clay coated, corrugated stocks.
- Splicing of foils, films, fabrics.
- Laminating adhesive for foams, photos.
- Mounting promotional items, posters.
- Mounting rubber or photopolymer printing plates.
- Miscellaneous joining and holding where high initial adhesion, easy liner release, and a thin, long aging bond is required.

• **Tape 442**

Tape 442 is ideal for bonding together a wide variety of similar and dissimilar materials such as rubbers, metals, glass, papers, paints, and many plastics. Some application ideas include:

- Splicing of films, foils, papers, fabrics.
- Holding objects where high shear forces are encountered.
- Holding grinding and polishing pads.
- Miscellaneous joining and holding uses.

• **Tape 443**

Tape 443 is ideal for bonding together a wide variety of materials such as metals, papers, paints and most plastics. Some application ideas include:

- Mounting photopolymer printing plates.
- Splicing of papers and plastic films.
- Holding grinding and polishing pads.
- Holding objects where high shear forces are encountered.
- Miscellaneous joining and holding uses.

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Application Ideas (continued)

• Tape 444

Tape 444 is ideal for attaching a wide variety of similar and dissimilar materials where an aggressive adhesive with high initial adhesion is desired. Some application ideas are:

- Splicing of films, foils, fabrics, etc.
- Laminating adhesive for foams, photos, fabrics, metal or plastic nameplates.
- General purpose holding and mounting applications.

• Tape 9443

Tape 9443 is ideal for bonding together a wide variety of materials such as metals, papers, paints and most plastics. Some application ideas include:

- Splicing of papers and plastic films.
- Holding grind and polishing pads.
- Miscellaneous joining and holding uses.

• Tape 9589

Tape 9589 is ideal for applications where an aggressive rubber-resin adhesive with high initial adhesion is required. Some application ideas are:

- Quick and easy tacking of carpet edges.
- General industrial mounting, joining, and splicing.

3M Dispenser Selection

Manual Dispensers - C-25, H-10, H-128, M-712, M-741, M-742, M-744, P-52, P-56

Definite Length Dispensers - M-82, M-87, M-96, M-910, M-920

Semiautomatic Dispensers - S-625 w/attachment, T-646, T-653

For additional dispenser selection information refer to 3M's Dispenser/Tape Compatibility Guideline. For assistance in helping you determine the best dispenser for your application, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550. Address correspondence to: 3M Industrial Tape and Specialties Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 612-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-809-750-3000. In Mexico, phone: 5-728-2180.

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ISO 9002

This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

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