

3M

Vinyl Tape

471

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Technical Data

Product Description A conformable colored (10 colors and transparent) vinyl backing with a rubber adhesive ideal for many lane and safety markings, color coding, abrasion protection, masking, sealing, splicing and other general purpose applications.

Product Construction	Backing	Adhesive	Color	Standard Roll Length
	Pigmented and transparent vinyl	Rubber	Yellow, white, red, black, brown, green, orange, red-orange, purple, blue and transparent	36 yds. (33 m)

Typical Physical Properties **Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.**

ASTM Test Method

Properties for all colors except red-orange and transparent:

Adhesion to Steel:	23 oz./in. (25 N/100 mm)	D-3330
Tensile Strength at Break:	16 lbs./in. (280 N/100 mm)	D-3759
Elongation at Break:	130%	D-3759
Backing Thickness:	4.1 mils (0.10 mm)	D-3652
Total Tape Thickness:	5.2 mils (0.13 mm)	D-3652
Temperature Use Range:	40° to 170°F (4° to 77°C)	

Properties for red-orange:

Adhesion to Steel:	19 oz./in. (21 N/100 mm)	D-3330
Tensile Strength at Break:	20 lbs./in. (350 N/100 mm)	D-3759
Elongation at Break:	70%	D-3759
Backing Thickness:	4.0 mils (0.10 mm)	D-3652
Total Tape Thickness:	5.4 mils (0.14 mm)	D-3652

Properties for transparent:

Adhesion to Steel:	26 oz./in. (28 N/100 mm)	D-3330
Tensile Strength at Break:	16 lbs./in. (280 N/100 mm)	D-3759
Elongation at Break:	180%	D-3759
Backing Thickness:	4.1 mils (0.10 mm)	D-3652
Total Tape Thickness:	5.4 mils (0.14 mm)	D-3652

General Information	• Best results are attained when applied to a clean, dry surface at temperatures between 60° to 85°F (16° to 27°C). • Pigmented backings maintain their vivid colors even when exposed to heavy abrasion. • Conformability and dead stretch properties are ideal for taping, wrapping or sealing many curved or irregular surfaces. Note: While 471 tape resists many common solvents, 471 tape should not be exposed to ketones, chlorinated hydrocarbons and esters found in lacquer thinner, degreasers, paint strippers, etc., which may cause the backing to swell or curl.
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Shelf Life	To obtain best performance, use this product within 18 months from date of manufacture and store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.
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Application Ideas	• Ideal for masking, wrapping or sealing many curved or irregular surfaces. • Excellent for many lane and safety marking applications. • Ideal for color coding, abrasion protection, decoration and splicing applications.
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Features	Features	Advantages	Benefits
	• 4-mil pigmented vinyl backing	• Longer life than many competitive products which are surface printed • Readily conformable to many irregular surfaces • Abrasion resistant • Dead stretch properties provide straighter lines when masking, marking and sealing.	• Longer periods between rework helps improve productivity • Stays in place • Longer potential application life • Easier to work with, less rework and improved appearance
	• Sharp contrasting colors	• Sharper colors for color coding or marking systems	• Better appearance, draws attention and helps enhance plant safety
	• Rubber adhesive	• Provides good adhesion to many surfaces • Clean removal • Good solvent resistance	• Easier application and excellent holding strength • Helps reduce clean-up and labor costs • Excellent application protection and longer product life

Technical Information and Data

The technical information and data, recommendations, and other statements provided in this brochure are based on tests or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be used with the 3M product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limited Warranty and Limited Remedy

The 3M product will be free from defects in material and manufacture for a period of one (1) year from the date of manufacture. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If the 3M product is defective within the warranty period stated above, YOUR EXCLUSIVE REMEDY AND 3M'S SOLE OBLIGATION SHALL BE, AT 3M'S OPTION, TO REPLACE OR REPAIR THE 3M PRODUCT OR REFUND THE PURCHASE PRICE OF THE 3M PRODUCT.

Limitation of Liability

Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, warranty, negligence, or strict liability.

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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