3M™ Specialty Tape Solutions

3M™ Vinyl Tape 471

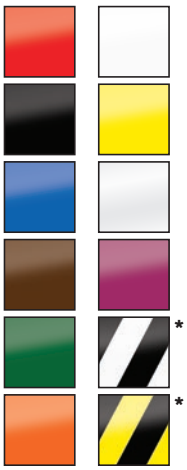
Solve a variety of challenges, including floor and safety marking, color coding and industrial applications with our durable 3M™ Vinyl Tape 471. Designed to resist wear, scrapes and moisture, this long-lasting tape is available in an array of vivid colors, as well as transparent.

Key Characteristics

- "Color throughout" resists scrapes, wear and weathering
- Colors available to help implement the 5S system
- Clean removal
- Extreme conformability and dead stretch means tape stays locked in place
- Chemical resistant
- Wide variety of vivid colors

Use For

- Durable marking of aisles and corridors in factories, warehouses, hospitals and retail spaces
- Marking of safety hazards on walls, stairs and pipes
- Fine line paint masking
- Sealing
- High visibility splicing
- Decorative trim
- Surface protection



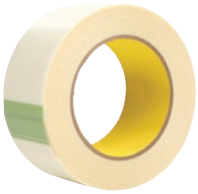
Technical Parameters	
Adhesive	Rubber
Backing	Vinyl
Backing Thickness	4.1 mils (0.10mm)
Total Thickness	5.2 mils (0.13mm)
Temperature Use Range	40°F to 170°F (4°C to 77°C)

* To meet your safety requirements, consider 3M™ Safety Stripe Tapes 5700 and 5702.

Specialty Six

Bringing better ideas to the surface with a wide variety of tape solutions.

3M™ Specialty Tape Solutions meeting application challenges for appliances, aerospace, automotive, construction, MRO, electronics, commercial transport, marine and more.

 **3M™ Aluminum Foil Tape 425**	 **3M™ Polyester Tape 850**
 **3M™ Vinyl Tape 471**	 **3M™ PTFE Film Tape 5490**
 **3M™ Glass Cloth Tape 361**	 **3M™ UHMW-PE Tape 5423**

3M™ Lane Marking Applicator M1

Save time. Save money. Save your back.

The 3M™ Lane Marking Applicator M1 helps you apply tape quickly and safely.

With the new 3M™ Lane Marking Applicator M1, tape application couldn't be easier or faster. An effective solution for marking warehouse traffic lanes and hazardous areas, it helps you easily apply tapes without crawling around on the floor.

3M Lane Marking Applicator M1 pairs perfectly with 3M™ Safety Stripe and Vinyl Tapes, which are a more durable solution for lane or hazard marking than other competitive tapes or painting. OSHA and ANSI approved, these versatile, abrasion- and wear-resistant tapes adhere to a wide variety of surfaces and are simpler to remove than paint.

Start striping smarter today and choose 3M.

When it comes to keeping the workplace safe, we've earned our stripes.

For more than 40 years, 3M™ Safety Stripe and Vinyl Tapes have been helping improve workplace safety with durable, easy-to-apply, easy-to-remove striping.

2

Competitive Safety Stripe Tape
After only 25 abrasion wear cycles, the black color is wearing away quickly.

3

3M™ Safety Stripe Tape 5702
After 25 abrasion wear cycles, the tape retains its original color stripes.

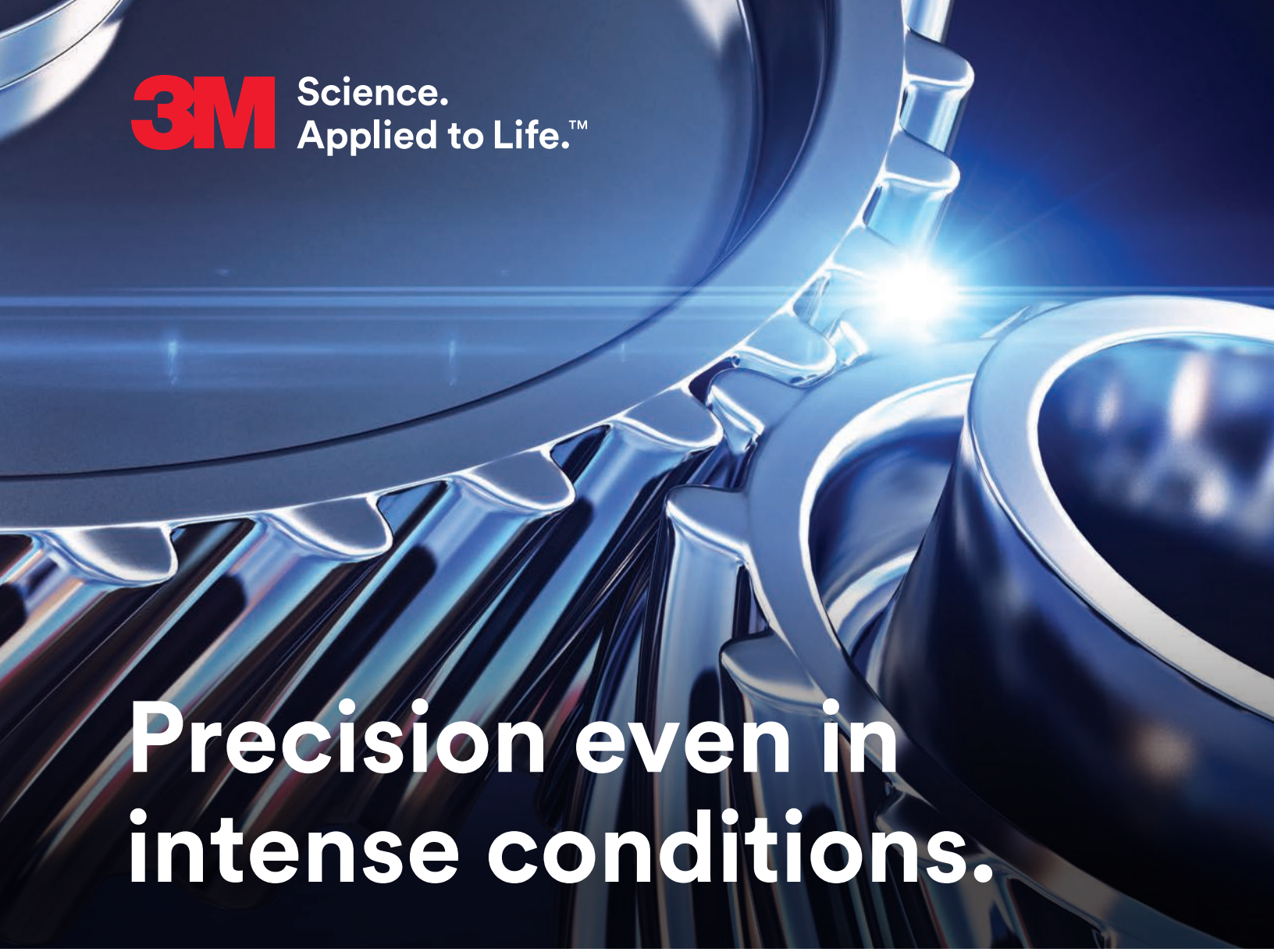
4

Competitive Safety Stripe Tape
After 1,000 abrasion wear cycles, the color black is worn away.

5

3M™ Safety Stripe Tape 5702
After 1,000 abrasion wear cycles, the black color is still visible.

	Product	Size	Description
 6	**3M™ Vinyl Tape 471**	2″-4″ widths	A conformable, colored tape made from vinyl backing with rubber adhesive. Ideal for many lane and safety markings, color coding, abrasion protection, masking, sealing, splicing and other general purpose applications. Available in: Black, Blue, Brown, Green, Orange, Purple, Red, Transparent, White and Yellow.
 7	**3M™ Safety Stripe Tape 5700**	2″-4″ widths	A black/white durable vinyl tape used to identify and mark traffic areas and physical hazards.
 8	**3M™ Safety Stripe Tape 5702**	2″-4″ widths	A black/yellow durable vinyl tape used to identify and mark traffic areas and physical hazards.



3M Science. Applied to Life.™

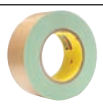
Precision even in intense conditions.

3M™ Tapes for Metal Processing

3M innovative solutions help improve design and manufacturing processes in order to help you deliver competitive metal parts to the market. 3M is one of the leading manufacturers of high-performance masking and protection solutions. With our broad selection of tapes, we can help you find a solution for even the harshest metal processing steps.

- **Anodization.** Anodizing is an electrochemical conversion process used to increase the durability and corrosion resistance of metal parts by creating a surface oxide layer.
- **Blasting & Peening.** Peening is a process of working a metal's surface, often in preparation for further surface treatments, to clean and improve the strength and durability of the metal against fatigue and corrosion. Blasting with shot (shot peening) and light (laser peening) are common methods of peening.
- **Electroplating.** Electroplating is a process using electric current to coat one metal with a thin layer of a second metal in order to provide a decorative finish or enhance corrosion resistance.
- **Machining & Shop Handling.** Metal parts are subjected to machining processes such as bending, cutting and sanding during the transformation from sheet good to finished parts. They are also moved from station to station being exposed to scratch hazards such as dropped tools or loose rivets.
- **Powder Coating.** Powder coating is a process in which a dry chemical powder is electrostatically charged, sprayed onto a surface, and subsequently cured at high temperature to achieve a durable and decorative surface finish.
- **Bundling & Handling.** Contain metal parts, rods or components for easier transport from one location to another.

3M™ Tapes for Metal Processing

	Product Info	Anodization	Blasting & Peening	Electroplating	Machining & Shop Handling	Powder Coating	Bundling & Handling
	**3M™ Polyester Tape 8402/8403** **Tape 8402**: 1.9 mil (0.048mm) **Tape 8403**: 2.4 mil (0.061mm)	Listed on multiple aerospace specs					
	**3M™ Polyester Tape 8901/8902/8905** **Tape 8901**: 2.4 mil (0.061mm) **Tape 8902**: 3.5 mil (0.086mm) **Tape 8905**: 6.5 mil (0.16mm)					Premium powder coat product	
	**3M™ Polyester Tape 8991/8992** **Tape 8991**: 2.4 mil (0.061mm) **Tape 8992**: 3.2 mil (0.082mm)	▶ **Lead product choice;** listed on multiple aerospace specs			Resistant to light scratches and abrasion; durable	▶ **Lead product choice**	
	**3M™ Polyimide Tape 8997/8998** **Tape 8997**: 2.2 mil (0.057mm) **Tape 8998**: 3.3 mil (0.085mm)					Higher temperatures	
	**3M™ Electroplating Tape 470** **Tape 470**: 7.1 mil (0.18mm)	Non-silicone; conformable; listed on multiple aerospace specs		▶ **Lead product choice**			
	**3M™ Vinyl Tapes 471** **Tape 471**: 5.2 mil (0.13mm)	Non-silicone; conformable		Thin and more conformable	▶ **Lead product choice**		
	**3M™ Electroplating/Anodizing Tape 484** **Tape 484**: 6.7 mil (0.17mm)	Lower adhesion; non-silicone; conformable		Lower adhesion			
	**3M™ Lead Foil Tape 420/421** **Tape 420**: lined version of 421 **Tape 421**: 6.3 mil (0.16mm)	Conformable foil		Resistant to caustic baths; edges can be burnished			
	**3M™ Impact Stripping Tape 500/528** **Tape 500**: 36 mil (0.91mm) **Tape 528**: 82 mil (2.1mm)		▶ **Lead product choice;** heavy-duty abrasion resistance to multiple media				
	**3M™ Aluminum Foil Tape 425/427** **Tape 425**: 4.6 mil (0.12mm) **Tape 427**: lined version of 425	Non-silicone			Higher temp heat shielding where high temp may damage adjacent surfaces		
	**3M™ Sandblast Resistant Vinyl Film Tape 33515** **Tape 33515**: 14 mil (0.36mm)		Resistant to less aggressive media and pressure				
	3M™ Sandblast Resistant Vinyl Film Tape 33518 **Tape 33518**: 9.3 mil (0.24mm)		Thinner version of 33515; more conformable				
	**Scotch® Clean Removal Strapping Tape 8899HP** **Tape 8899HP**: 4.8 mil (0.12mm)				High strength with clean removal and abrasion resistance		Thinner and more conformable
	**Scotch® Filament Tapes 898** **Tape 898**: 6.6 mil (0.17mm)						▶ **Lead product choice**

Vinyl Tape

471 • 4712 (Linered)

Technical Data **February, 2011**

Product Description

3M™ Vinyl Tape 471 and 4712 are a conformable colored (9 colors plus transparent) tapes made from vinyl backing with rubber adhesive. They are ideal for many lane and safety markings, color coding, abrasion protection, masking, sealing, splicing and other general purpose applications.

3M vinyl tape 4712 is a linered version of 3M vinyl tape 471 that may be used for die cutting or large area applications.

Product Construction

Product	Adhesive	Color	Standard Roll Length
3M™ Vinyl Tape 471	Rubber	Yellow, white, red, black, brown, green, orange, purple, blue and transparent	36 yds. (33 m)
3M™ Vinyl Tape 4712	Rubber	Yellow, white, red, black, brown, green, 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 transparent:		
Adhesion to Steel:	23 oz./in. width (25 N/100 mm)	D-3330
Tensile Strength at Break:	14 lbs./in. width (270 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 (0.14 mm)	D-3652
Liner Thickness: (3M™ Vinyl Tape 4712)	2.5 mils (0.6 mils)	D-3652
Temperature Use Range:	40° to 170°F (4° to 77°C)	
Low Leachable Halogen and Sulfur:	Passes	MIL-STD-2041D(SH)
Properties for transparent:		
Adhesion to Steel:	26 oz./in. width (28 N/100 mm)	D-3330
Tensile Strength at Break:	14 lbs./in. width (270 N/100 mm)	D-3759
Elongation at Break:	150%	D-3759
Backing Thickness:	4.1 mils (0.10 mm)	D-3652
Total Tape Thickness:	5.2 mils (0.14 mm)	D-3652
Liner Thickness: (3M™ Vinyl Tape 4712)	2.5 mils (0.6 mils)	D-3652
Temperature Use Range:	40° to 170°F (4° to 77°C)	

3M™ Vinyl Tape

471 • 4712 (Linered)

Features

- Pigmented backings maintain their vivid colors even when exposed to heavy abrasion.
- Can be sold to Commercial Item Description A-A-1689 Type I & II
- Conformability and dead stretch properties are ideal for taping, wrapping or sealing many curved, convex, or irregular surfaces.
- Rubber adhesive provides good adhesion to many surfaces for easier application and excellent holding strength.
- Sharp colors for color coding or marking systems, draw attention and help enhance plant safety.
- Clean removal from many surfaces which helps reduce clean-up and labor costs.
- Abrasion resistant and longer potential application life.
- Good solvent resistance for application protection and longer product life.
- 3M™ Vinyl Tape 4712 can be printed using the thermal printing process.

Application Ideas

- Excellent for many lane and safety marking applications. When used with an applicator like the M-77 dispenser, 3M™ Vinyl Tape 471 can be quickly applied to define storage and safety areas. The fact that 3M tape 471 tape is quickly and cleanly removed in most cases makes it a faster, more versatile and less costly option than painting. Using tape for lane marking instead of painting also eliminates the need to ventilate paint solvents from an open area.
- Because they have low leachable halogens and sulfur, 3M™ Vinyl Tapes 471 and 4712 can be used in corrosion sensitive applications like the nuclear and stainless steel industries.
- 3M tape 4712 is great for die cuts and large area masking.
- Printed 3M tape 4712 can extend the range of 3M tape 471 for color coding by allowing multiple colors or identification on one tape.
- 3M tapes 471 and 4712 stretch to seal canisters and other storage containers that require a tight seal.
- Vivid colors of the tapes make them ideal for color, coding and decorating.

Application Techniques

- Best results are attained when applied to a clean, dry surface at temperatures between 60° to 85°F (16° to 27°C).

Note: While 3M tapes 471 and 4712 resist many common solvents, they 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.

3M™ Vinyl Tape

471 • 4712 (Linered)

Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

Shelf Life

To obtain best performance, use this product within 18 months from date of manufacture.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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ISO 9001:2008

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