



Floor Marking Application Ideas

471 • 5700 • 5702

Technical Bulletin

April, 2003

Surface Preparation

1. Surfaces to be marked with 3M™ Vinyl Tape 471 and 3M™ Safety Strip Tapes 5700 and 5702 should be as clean, dry and smooth as possible. Floors may require cleaning to remove all traces of oils, grease, moisture, and any accumulation of waxes, coatings, finishes as well as dust, dirt and other grime.
2. Cleaning solutions should be chosen that do not leave residues or waxes on the surface to which the tape is to be applied. Always allow sufficient time for thorough drying of the cleaning solution prior to application of the tape.
3. Rough areas may need sandblasting, scraping, sanding or grinding to help ensure maximum contact of the tape to the application's surface. Any dust, particulates or contamination must be removed prior to applying the tape.
4. Freshly sealed surfaces, including, but not limited to, concrete, varnished or waxed floors should be allowed to dry thoroughly prior to application of the tape.

Note: Be sure to follow manufacturer's precautions and directions for use when using cleaning solutions or sealers. Wear appropriate personal protective equipment when sandblasting, scraping, sanding or grinding.

Application Procedures

Note: It is strongly recommended that 3M tapes 471, 5700 and 5702 be tested on the actual surface in an inconspicuous area prior to use in the intended application to determine compatibility with flooring.

1. After completing the surface preparation process 3M tapes 471, 5700 and 5702 can then be applied to the surface of the intended application. Optimal adhesion is obtained when both the tape and intended surface are within a temperature range of 60° to 80°F (16° to 27°C).
2. When applying the tape in long straight lines and for all but the tightest curves, use of the 3M™ Floor Marking Applicator M-77 is recommended. Prior to applying the tape, a chalk line may be used as a guide line for the 3M M-77 applicator (see figures #1 and #2). For curved lines, apply the tape along the outside of the guide line (see figure #2) and proceed slowly around the arc of the curve.

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Application Procedures (continued)

3. Tight curves that are applied by hand require the inside edge of the tape to be placed along the arc of the curve first, followed by smoothing-out the remaining width of the tape afterwards. Extra time and care is required to help prevent lifting as well as stretching of the tape.
4. Once the tape has been applied, a weighted roller or a tape wiper is recommended to help fully adhere the adhesive of the tape to the application surface.
5. Where overlap joints are required, such as at corners and splices, the overlap should be at least 2" (50.8 mm) long or the full width of the tape (see figure #3). For butt joints, both ends of the tape must be firmly rubbed down to help prevent lifting (see figure #4).
6. Where traffic will cross the taped lines the tape should either be bracketed (see figure #5) or the area should have the tape cut width-wise every 4 to 6 inches (100 to 150 mm) in length to help prevent long sections of the tape from being lifted or removed (see figure #6). If damage should occur this cutting technique will facilitate the removal and repair of damaged sections.

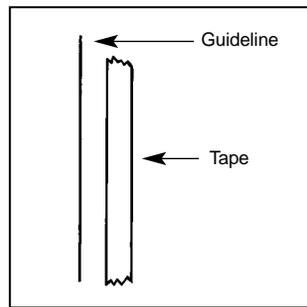


Figure 1

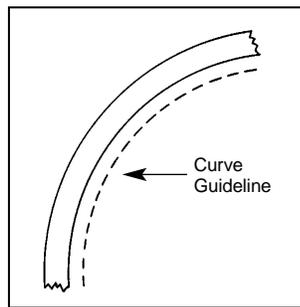


Figure 2

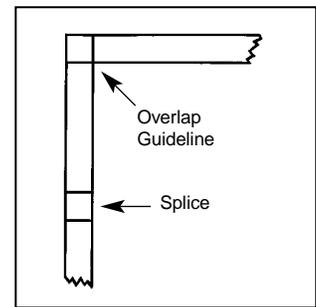


Figure 3

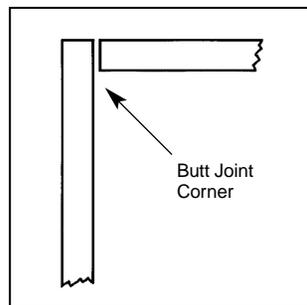


Figure 4

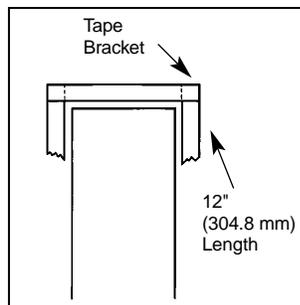


Figure 5

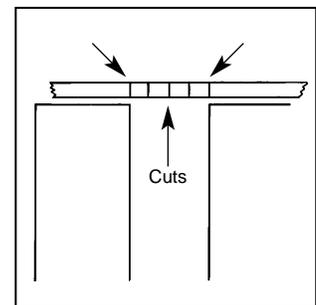


Figure 6

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Floor Finishing

Note: Before using any floor finishing product with 3M™ Vinyl Tape 471 and 3M™ Safety Strip Tapes 5700 and 5702, it is strongly recommended that the floor finishing product be tested to determine compatibility with the tape in an inconspicuous location before use in the intended application.

1. Many floor finishing products, such as waxes, varnishes, paints and lacquers, contain solvents which will affect the stability of the 3M tapes 471, 5700 and 5702. Solvents known to affect these tapes include, but are not limited to, toluene or toluol, xylenes or xylol, ketones, chlorinated hydrocarbons as well as esters found in lacquer thinners, degreasers, paint strippers and mineral spirits.*
2. When using a solvent-based floor finishing product, it is recommended that a very thin “kiss coat” be applied over 3M tapes 471, 5700 and 5702, to help minimize any lifting of the tape from the application surface. This “kiss coat” should be allowed to thoroughly dry prior to sealing the remainder of the floor (several thin coats may be needed to help minimize any damage to the tape).
3. When using a water-based floor finishing product with 3M tapes 471, 5700 and 5702, it is recommended that an abrasive pad such as 3M™ Scotch-Brite™ abrasive pad be rubbed along the length of the tape to roughen the surface in order to help minimize potential anchorage or flaking problems. As with the solvent-based sealers, it is also recommended that a “kiss coat” be applied over these tapes to help minimize any swelling or lifting of the tape from the application surface. This “kiss coat” should be allowed to thoroughly dry prior to sealing the remainder of the floor.

*Be sure to follow the manufacturer’s precautions and directions for use when using finishing products.

Removal Techniques

1. To help minimize damage to the surface that 3M tapes 471, 5700 and 5702 have been applied to, it is recommended that the tape be lifted gently at a corner then pulled-up at a perpendicular angle. Use of warm heat (e.g., use of a heat gun) applied evenly to the tape backing surface while removing may also help.
Note: Over heating may damage the underlying surface or finish.

2. Adhesive residues may be softened by use of many common solvents such as heptane, toluene or methyl ethyl ketone or 3M™ Citrus Based Cleaner.*

*Be sure to follow the manufacturer’s precautions and directions for use when using solvents. Prior to using any solvent to help remove adhesive residues, it is strongly recommended that the solvent be tested to determine compatibility in an inconspicuous location with the underlying surface finish.

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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/adhesives. Address correspondence to: 3M Industrial Adhesives and Tapes Division, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55144-1000. Our fax number is 651-778-4244. 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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