Professional Masking Tips and Techniques

Yours for the masking... holding power, line sharpness, and removal the way you want.

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Selection Tip: Make it easy on yourself

Five questions to make 3M masking tape selection as easy as Class I, II, III

1. What is your application?
2. To what temperature will the tape be exposed during use?
3. Do you need maximum holding power during use?
4. Do you need maximum paint edge sharpness when the tape is removed?
5. Do you want to remove the tape without slivering and adhesive residue?

Answers to the five questions will probably take you to one of nine 3M masking tapes. In the streamlined selection above, you’ll find answers for most industrial applications. If not, many other 3M masking tapes are available for more specialized requirements. See the chart on the back cover.
Application Tip: Make the most of your time and tape

Surface considerations for best results

A clean surface gives the adhesion and removal you want.

Simply wipe the surface with a dry lint-free cloth to remove dust, dirt, and moisture. To remove oil, grease, or plasticizer contamination, wash the surface with soap and water. To remove silicone in some instances, apply shaving cream that contains palm oil and scrub clean with water. If you have tougher contaminants, isopropanol or industrial solvent like heptane may be necessary to prep the surface. When using such chemicals, follow the MSDS handling instructions.

Always test the tape in an inconspicuous area before full scale application.

Surface temperatures between 50-90°F (10-32°C) are best for tape application.

Colder surfaces may cause the adhesive to firm up and not grab well enough for an effective bond and sharp paint line. On hot surfaces, the adhesive may soften and smear.

Thin crepe is better than thick

3M masking tapes use a thin crepe backing to solve several thick crepe problems. With thick crepe, paint builds up along the tape for a visible paint ridge. Wet paint can also seep into small channels leaving a fuzzy paint edge.

End tabbing for easier removal

Fold over and stick the end of the tape to itself. The resulting tab is a convenient starting point for easy tape removal with reduced chance for slivering. Be sure no adhesive is exposed to stick to other surfaces.

Handling tape for best application

Avoid stretching the tape.

Pull at least a foot of tape at a time from the roll...more when conditions permit. Press down only small increments of tape, keeping a droop between the point of contact and the roll or tape end. If stretched, tape may lift or break.

Lay tape into depressions.

Do not stretch or force tape into depressions. This leaves “stretch” in the tape that compensates for any shrinkage during painting or drying, so you’ll get better adhesion and paint edge.

Firmly press down tape edges.

After laying the tape into position, press down the edges. Using a plastic 3M” “P.A.-1” Tape Wipe increases tape-to-surface contact to help prevent seepage and jagged paint lines.
**Application Techniques**

**Direct masking**

Apply tape directly to a clean, dry surface with or without gross masking paper or film.

Do not tape over freshly painted surfaces. This can trap solvents and cause imprinting or ghosting.

**Over tape masking for fine paint lines**

When the finished job requires a very fine paint line, a 3M fine line masking tape is first applied to the surface.

3M crepe masking tape is then applied over the fine line tape. The edge of the crepe is set back from the paint line edge of the fine line tape. The crepe holds gross masking paper or film.

NOTE: Before applying the crepe tape lightly scuff the back of the fine line tape with a Scotch-Brite™ Hand Pad to increase the adhesion between the two tapes if needed. This is particularly important if the crepe tape is holding large gross masks.

**Spiral or twist masking**

This technique helps prevent paint blow bye into gaps such as door jambs. With adhesive side out, twist the tape back onto itself creating a cylinder with an adhesive exterior. Press the cylinder into a gap or close the door on it.

**Double stick offset masking**

Overlap two tapes adhesive side to adhesive side with edges offset so that adhesive is exposed on both sides. Tape can then be applied first in production and then a gross mask added later.

The technique can also fill gaps. For example, tape is first applied to the edge of a desk and hangs inside an opened drawer. When the drawer is closed the tape seals the gap.

**Inside out masking**

Apply tape to the inside of a frame such as a window, leaving some of the adhesive side overhanging into the opening. Apply gross masking paper or film to the exposed adhesive.
**Removal Tip:**
**Not too fast, not too hot**

90° pull at moderate speed for best results

Keep the angle of removal perpendicular (90°) to the surface and pull at a moderate speed. If the angle is more or less, there is greater chance of adhesive transferring from the tape to the surface. The same problem is possible if the tape is removed too slowly. If removed too quickly, the tape may tear or sliver.

Remove at 60-120°F (15-49°C) for clean release

At 60-120°F (15-49°C), the adhesive is firm enough for clean removal without tearing or slivering. Removal at hotter temperature increases the potential for adhesive transfer. At colder temperature, the tape is more brittle with increased chance for slivering.

When speed or temperature of removal is not quite right...

For minor adhesive transfer rub the adhesive with your finger into a ball and wipe it off. Or, dab up the adhesive with another piece of tape.

For major adhesive transfer that is tacky, use common cleaning agents such as 3M citrus base cleaner, mineral spirits, or industrial solvents. Before use, always review manufacturer MSDS and test the surface in an inconspicuous area.

For hard adhesive on hard surfaces, scrape with a razor blade or sand with fine grit paper. Use caution to prevent surface damage.

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**Feathered edge masking**

A feathered paint edge provides a very low profile that is usually covered with a decorative tape. The tape after application appears smooth with no visible ridge from a paint edge.

To create a feathered edge, fold up one tape edge. Spray paint from an angle that does not allow the paint to go directly under the folded edge.

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**Reverse masking for large areas**

For two-tone applications over large areas, this technique involves sealing the ends or flaps of large masking bags or sheets.

1. Apply 3M fine line masking tape to the painted surface to establish the break line for the second color that will be added over the first color.

2. Prepare a 6" high gross mask of paper or film with 3M crepe masking tape overhanging the top and bottom edges.

3. Apply one edge over the fine line tape. The crepe edge is set back from the edge of the fine line tape. The other edge of the gross mask is an unattached flap at this point.

   NOTE: Before applying the crepe tape lightly scuff the back of the fine line tape with a Scotch-Brite™ Hand Pad to increase the adhesion between the two tapes if needed.

4. The primary color will be protected with a masking bag or large sheets of gross masking paper or film. Tuck the bag or sheet edges behind the flap of the 6" mask and press the flap firmly in place.

5. Tape down all loose flaps.

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*Extends across entire surface. Shown cut off for schematic purposes only.*

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## 3M masking tape guide for specialized applications and surfaces

<table>
<thead>
<tr>
<th>Color</th>
<th>Tan</th>
<th>Black</th>
<th>Green</th>
<th>Silver</th>
<th>Blue</th>
</tr>
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</table>

<table>
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<tr>
<th>Hold to and clean removal from specialty surfaces</th>
<th>Stainless steel</th>
<th>Anodized aluminum</th>
<th>Alodine aluminum</th>
<th>Phosphate primer</th>
<th>Chemlease primer</th>
<th>Zinc primer</th>
<th>Nickel plating</th>
<th>Brass</th>
<th>Copper</th>
<th>Silver/silver plate</th>
<th>Polycarbonate plastic</th>
<th>EPDM rubber</th>
<th>Most powder coated paints</th>
<th>Silicone</th>
<th><strong>R</strong></th>
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<table>
<thead>
<tr>
<th>Holding strength to common surfaces i.e. steel, paints</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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</table>

<table>
<thead>
<tr>
<th>Paint line</th>
<th>Good</th>
<th>Better</th>
<th>Best</th>
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<table>
<thead>
<tr>
<th>Sunlight/outdoor exposure</th>
<th>Up to 7 days on glass</th>
<th>Up to 3 days opaque surface</th>
<th>Up to 30 days opaque surface</th>
<th>Up to 90 days opaque surface</th>
</tr>
</thead>
</table>

| Increasing temperature performance (30 min. bake) | up to 150°F (66°C) | up to 200°F (93°C) | up to 250°F (121°C) | up to 300°F (149°C) | up to 325°F (163°C) | up to 350°F (177°C) |

*NOTE: The technical information and data provided above is a general guide only and should be considered representative or typical only and should not be used for specification purposes.*

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