Film Applicators for Textured Surfaces

3M ™ Textured Surface Applicator TSA-1, Large Area Roller
3M ™ Textured Surface Applicator TSA-2, Mortar Joint Roller
3M ™ Textured Surface Applicator TSA-3, Edge Roller
3M ™ Two-Handled Textured Surface Applicator TSA-4, Large Area Roller
3M ™ Power Grip Magic Pad Applicator CMP-1

Note: Some tools and processes in this Bulletin are described and claimed in 3M Patents and pending Patent applications.

Intended Use

These tools, except the pad applicator CMP-1, are intended primarily for applying 3M™ Scotchcal™ Graphic Film for Textured Surfaces IJ8624 or 8624 ES to moderately textured wall surfaces using high heat. The use of such high heat with other films is not recommended.

Health and Safety

⚠WARNING

Physical Comfort

Any activity performed for a long period of time in an awkward position or with a high amount of force is potentially a risk for causing musculoskeletal strain, pain or injury. When applying graphics, follow these practices to improve comfort and avoid injury:

- Alternative your tasks during the application.
- Schedule regular breaks.
- Perform stretches or do exercises to improve circulation.
- Avoid awkward reaching.

⚠WARNING

Risks of Using Heat Sources

- Read, understand and follow the safety instructions contained in both this 3M Instruction Bulletin as well as the heat-gun manufacturer's manual.
- Wear a heat-resistant glove on the hand(s) holding the applicator.
- Do not use heat sources near solvent mixtures or residues, or in areas where solvent vapors may be present at hazardous levels.
- Never use an open-flame heat source in this process.

⚠ CAUTION

Ventilation

Always provide adequate ventilation to remove emissions that may result from the use of heat. Failure to provide adequate ventilation can result in operator exposure.

High Heat May Degrade Foam Rollers and Damage Substrate

High heat directed at the foam may degrade the foam. Always direct the heat toward the film, not the foam roller.

High heat may also damage the substrate: use with caution.

Air Quality Regulations

State Volatile Organic Compound (VOC) regulations may prohibit the use of certain cleaning solutions. For example, the California South Coast Air Quality Management District prohibits use of certain solvent-based solutions without a permit and other California AQMD's prohibit use of certain solutions without a permit or a regulatory exemption. You should check with your State environmental authorities to determine whether use of this solution is restricted or prohibited.

General Usage Guidelines

Use High Temperature Heat Gun

Use with a high temperature, electronically-controlled heat gun capable of reaching at least 1000°F (538°C), and use only the 3M films recommended for textured walls. See Instruction Bulletin 5.37 for additional details.

Use Good Physical Form

For maximum comfort and effective use of the applicators, always:

- Grip the applicator as shown.
- Hold the applicator as though it is an extension of your arm to reduce stress on your wrist.
- Keep the applicator perpendicular to the surface.
- Use full arm movements.

Use Current Instruction Bulletin

Refer to the most current version of Instruction Bulletin 5.37 for detailed instructions to help ensure a successful application.

Pro's Tip

Prevent trapping air. Always work toward an open edge through which the trapped air can escape. NEVER work from the edge to the center or from an open edge to a sealed edged, such as at a panel overlap.

Don't move too quickly. When working with rollers, the most common application error is moving too fast. Try moving at about 2 inches per second at first and adjust as needed.

Test each surface. Do a test application on each unique surface to adjust your technique and use the right tool for maximum success.

3M™ Textured Surface Applicator TSA-1

Use for conforming large areas of film onto a textured surface.



1. Wear a heat-resistant glove on the hand that holds applicator TSA-1.
2. Gently tack the top few inches of the film to the substrate. Use tapping motion with your fingers or lightly roll it, without heat, using applicator TSA-1.
3. Set the heat gun to the temperature specified in Instruction Bulletin 5.37.

Pro's Tip

To set edges, *quickly and lightly* pass the TSA-1 tool and the heat gun over the edges of the film to set the edges, but **do not** seal or conform the film; it is critical that air have an escape path during installation. ***This is especially recommended when using overlaminate 8524.***



4. Direct the heat gun toward the top corner of the graphic. Heat the film until warm, which usually takes only about 2 seconds and immediately begin rolling the film with the applicator TSA-1. Notice that the roller is positioned about 2 inches above the top edge of the graphic for the first pass.
5. With the applicator closely following the heat gun, move continuously at about 2 inches per second and completely past the outer open edge of the graphic.



6. Move the applicator down 1.5 inches so that the next pass overlaps the previous one by about 70%. Notice in the photo how the film conformed to the texture during the first pass.

3M™ Textured Surface Applicator TSA–2

Use TSA-2 to conform heated film to mortar joints and inside corners.

Shown without film for detail



Using TSA-2 to work film into mortar joints



1. Wear a heat-resistant glove on the hand that holds applicator TSA-2.
2. Set the heat gun to the temperature specified in Instruction Bulletin 5.37.
3. Direct the heat gun toward the mortar joint. Heat the film until warm—usually takes only about 2 seconds—and immediately begin rolling the film into the joint with applicator TSA-2.
4. Using applicator TSA-2, closely following the heat gun, move continuously at about 2 inches per second and completely past the outer open edge of the graphic.

3M™ Textured Surface Applicator TSA–3

Use to conform heated film around cut edges and in corners. This tool is particularly helpful for mosaic-type applications.





1. Wear a heat-resistant glove on the hand that holds applicator TSA-3.
2. Set the heat gun to the temperature specified in Instruction Bulletin 5.37.
3. Direct the heat gun toward the top edge of the film. Heat the film until warm—usually takes only about 2 seconds—and immediately begin rolling the film into the joint with applicator TSA-3.
4. With applicator TSA-3 closely following the heat gun, move continuously at about 2 inches per second and completely past the edge of the graphic

3M™ Two-Handled Textured Surface Applicator TSA-4

Attach a heat gun to applicator TSA-4 and use the tool to conform large areas of film to a textured surface.



Mounting the Heat Gun

Consider this before mounting the gun: the gun must heat the film before the roller contacts the film. In the orientation shown in these photos, the applicator would always be leading with the left hand and following with the right hand. To lead with the right hand, rotate the tool 180 degrees before mounting the gun.

Use a heat gun with a barrel of 1.53 to 1.55 inch (38.9 to 39.3 mm) diameter. Always mount the gun so the electric cord is hanging down. Insert the gun barrel in the heat gun holder and securely tighten the clamping knob. The end of the gun should be about 1 inch (2.5 cm) above the substrate when the tool is in use.

To change directions, shut off and unplug the gun, loosen the clamping knob, rotate the tool 180 degrees and tighten the clamping knob.

⚠WARNING Always wear heat-resistant gloves on both hands when using this tool. The metal surfaces of the tool become hot during use. Even after you shut off the gun, the metal may burn unprotected skin until the tool cools.



Proper Tool Ergonomics

- Keep both handles parallel to the application surface so the gun nozzle maintains an even distance from the surface so there is uniform pressure at both the top and bottom of the roller. Keep the gun nozzle at an even distance from the film.
- Walk along with the tool, staying centered in front of it for even pressure rather than extending your arms across a broad distance.
- Use enough pressure to conform the film to the substrate.

How to Apply Film with Applicator TSA-4

1. Wear a heat-resistant glove on both hands.
2. Set the heat gun to the temperature specified in Instruction Bulletin 5.37.
3. Lightly tack the film to the substrate. Use a tapping motion with your fingers or lightly roll it, without heat, using applicator TSA-1 or TSA-4.
4. Adjust the heat gun in the tool so the gun opening is about 1 inch away from the textured surface.

Pro's Tip

To set edges, *quickly and lightly* pass applicator TSA-1 or TSA-4 and the heat gun over the edges of the film to set the edges, but **do not** conform the film; it is critical that air have an escape path during installation. ***Edge setting is especially recommended when using overlaminate 8524.***





5. Direct the heat gun toward the top corner of the graphic. Heat the film until warm, which usually takes only about 2 seconds and immediately begin rolling the film with the applicator TSA-4. The roller should be positioned about 1 inch above the top edge of the graphic for the first pass.
6. With the applicator closely following the heat gun, move continuously at about 2 inches per second and completely past the outer open edge of the graphic.
7. Move the applicator down 2-½ inches so that the next pass overlaps the previous one by about 1/2 inch. Notice in the photo how the film conformed to the texture during the first pass.

3M™ Power Grip Magic Pad Applicator CMP-1

Use CMP-1 to conform heated film around protrusions and edges, tight areas, etc.



Note: In general, use this applicator for the same purposes as TSA applicators, but take note of the different usage techniques.

1. Wear a heat-resistant glove on the hand that holds applicator CMP-1.

1. Heat the film for about 1 second and immediately press the film firmly with applicator CMP-1 for about another second to conform the film around the texture. Do NOT twist the pad.
2. Move to the next section of film--about 1/2 the width of the pad--heat the film and press firmly with the pad. Continue heating and moving the pad in this manner.

Pro's Tip

Work in gradually from the edge of large raised areas so that air has time to escape from under the film.

Label License Agreement

The purchase of 3M Textured Surface Applicator Tools TSA-1, TSA-2 , TSA-3 and TSA-4 (the "Tools") includes a limited, non-exclusive license for the Buyer to use the Tools, in conjunction only with 3M film products, to teach and/or perform the method claimed in the following patents and patent applications owned by 3M Innovative Properties Company.

Patent or Publication Number
United States Patent Application Number US 2007/0000606
WO 00/43220
European Patent Number 1 147 019

The rights granted under this Label License extend only to the Tools purchased herewith. Buyer may not transfer the rights granted hereunder except with the re-sale of the Tools.

3M DOES NOT make any warranties or representations regarding use of the tools to practice the method under this Label License.

Buyer represents and warrants that it will use 3M film products when teaching or performing the method described in the above referenced patent application. The rights are expressly revoked if Buyer teaches and/or performs the method with a non-3M film product. Further licenses of these patents and patent applications are available for a negotiated royalty.

3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. Current Bulletins are available at www.3Mgraphics.com. The following Product and/or Instruction Bulletins provide information and processes you need to properly make the graphics described in this Bulletin. Additional Bulletins may be needed as indicated in the 3M Related Literature section of the listed Bulletins.

Subject	Bulletin No.
A Guide to Understanding and Applying Graphics to Common Indoor and Outdoor Wall Surfaces	5.37
3M Graphics Center Warranty Brochure	Go to www.3Mgraphics.com

Bulletin Change Summary

Added applicator TSA-4 and information on how to use it.

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