



Raised Pavement Marker Series 290 With Pressure Sensitive Adhesive Surface Preparation and Application Procedures Series 290

Information Folder 290 PSA

August 2010

Replaces Information Folder 290 PSA dated February 2008

Description

This information folder contains pavement surface preparation and application procedures for 3M™ Pressure Sensitive Adhesive (PSA) Raised Pavement Marker Series 290. Users of 3M PSA Markers must be completely knowledgeable of all application requirements and procedures prior to product application. For situations not specifically covered in this folder, it is the responsibility of the installer to contact the appropriate 3M sales representative or 3M pavement marking technical service representative at 1-800-553-1380 for guidance. Instructions contained in this folder must be followed for proper application and performance.

General Application Guidelines

3M PSA markers are designed for application on properly prepared asphalt or concrete cement surfaces using a pressure sensitive adhesive (PSA). The following requirements apply to all 3M PSA markers applications:

- **Temperatures**

- **Air Temperature:**

- Minimum 60°F (16°C) and rising.

- **Surface Temperature:**

- Minimum 70°F (21°C) and rising.

- **Overnight Air Temperature:** Minimum 40°F (5°C) the night before marker application.

- **General Surface Condition**

- The pavement surface must be clean and dry. No rainfall should occur within 24 hours prior to application.

Application Surface Types

- **New Asphalt Surfaces**

- 3M PSA markers may be applied on new paved asphalt surfaces, immediately after final compaction of the asphalt surface by the finishing roller. Caution should be used to prevent embedment into the fresh, soft asphalt that would limit the visibility of the lens face. Embedment into the fresh asphalt surface should be limited to the thickness of the PSA pad.

- **Older Asphalt Surfaces**

- 3M PSA markers may be applied on most older asphalt surfaces depending on the pavement condition. Markers should not be placed on asphalt that is showing signs of deterioration, cracking, or failure.

- **New Portland Cement Concrete (PCC) Surfaces**

- New concrete surfaces open to traffic for less than 90 days must have the curing compound removed prior to application of the 3M PSA markers. Curing compound should be removed by sandblasting or other methods such as hydro-blasting, shot blasting or grinding.

- **Old Portland Cement Concrete (PCC) Surfaces**

- 3M PSA markers may be placed on older concrete surfaces depending on the pavement condition and provided proper surface preparation is completed. Old concrete surfaces that show evidence of scaling and/or smooth exposed aggregate must be textured through grinding or shotblasting prior to application of the marker.

- **Chip Seal Surfaces**

Chip seal surfaces shall be swept of excess aggregate and open to traffic for 30 days prior to installation of 3M PSA markers. Markers should not be installed on chip seal surfaces with large void spaces and/or loose aggregate with a weak bond to the underlying road surface.

- **Slurry Seal or Fog Sealed Surfaces**

3M PSA markers may be installed on these types of surfaces after the surface is allowed to completely cool and cure. In general, waiting 24 hours will allow enough time for curing to occur to allow placement of markers. Excess sand applied to soak up surface emulsions must be swept clean prior to installation of 3M PSA markers.

- **Open Grade Friction Course (OGFC) Surfaces**

3M PSA markers may be installed on OGFC surfaces after the surface is allowed to completely cool and the asphalt cement binder is allowed to harden.

DO NOT apply 3M PSA markers in the following situations:

- On seams or joints in the pavement surface.
- During rainfall or immediately after rainfall.
- On extremely rough, dirty, or deteriorating road surfaces.

Application Procedure

Note: The following procedure is for standard road surfaces in good condition. If you have any questions about your specific application, please call pavement marking technical service at 1-800-553-1380 for guidance.

1. Determine if the road condition meets the acceptable criteria based on the Application Surface Types section of this Information Folder.
2. Clean the road surface at the location of the marker application. The road surface may be cleaned using a broom and air blower to remove all loose material at the application location. **The road surface MUST be dry.**
3. Premark the road, if necessary.

4. Apply the marker by hand, peeling off the liner and applying the marker on the road.



5. Press the marker onto the ground with your boot.



6. Tamp the marker with a vehicle tire at a speed of 3-4 miles per hour. Be careful not to twist or turn the car tire while on the marker. Make one pass back and forth over the top of the marker.



7. As soon as the marker has been tamped with a vehicle tire, the road may be open to traffic.

General Performance Considerations

Maximum durability of raised pavement markers will be achieved when markers are properly applied according to the manufacturer's recommendations provided in Information Folder 290 PSA. Although reflective performance can be reduced by wear, the lens of the raised pavement marker is coated with an abrasion-resistant material that provides acceptable reflective performance under normal traffic wear.

Marginal Conditions

Application of 3M PSA markers is considered to occur during marginal conditions if at least one of the following conditions can be met:

1. Immediate threat of rain during application of the markers.
2. Road surface conditions such as:
 - a. Rough, old asphalt.
 - b. Old, smooth, concrete with exposed aggregate on the surface.
3. Air temperatures between 50° F (10° C) and 60° (16° C) and/or surface temperatures between 60° F (16° C) and 70° F (21° C).

The use of 3M™ Stamark™ Surface Preparation Adhesive P-50 (Information Folder 5.17) could be used with 3M markers for marginal conditions such as those listed above to increase adhesion to the road surface. Contact the appropriate 3M sales representative or 3M pavement marking technical service at 1-800-553-1380 for guidance. Apply P-50 according to the instructions included in Information Folder 5.17.

3M assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where reference is made in literature to a commercially available product, made by another manufacturer, it shall be the user's responsibility to ascertain the precautionary measures for its use outlined by the manufacturer.

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Traffic Safety Systems Division

3M Center, Building 0235-03-A-09
St. Paul, MN 55144-1000
1-800-553-1380
www.3M.com/tss

3M Canada Company

P.O. Box 5757
London, Ontario N6A 4T1
1-800-3MHELPS

3M México, S.A. de C.V.

Av. Santa Fe No. 55
Col. Santa Fe, Del. Alvaro Obregón
México, D.F. 01210

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Literature Reference

For additional information, refer to the following publications:

PB 290 3M™ Marker Series 290

FOR INFORMATION OR ASSISTANCE

CALL:

1-800-553-1380

IN CANADA CALL:

1-800-265-1840

Internet:

www.3M.com/tss