

Preform Thermoplastic

Installation Guide – Preform Thermoplastic

RAYOLITE

Preformed Thermoplastic Installation Instructions For preformed stencils and scored sheets

Rayolite preformed thermoplastic uses an alkyd resin binder selected for durable pavement marking performance and resistance to oil and diesel contamination. Supplied as preformed stencils or scored sheets, the material is heated in place to bond to the prepared pavement.

Before you begin

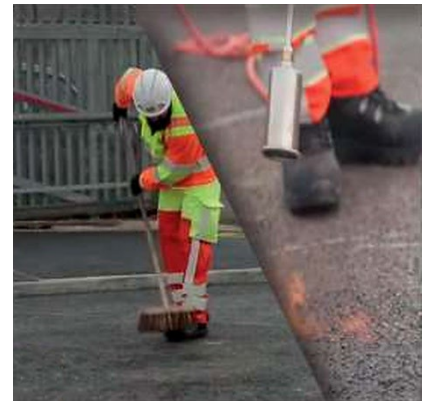
Establish appropriate traffic and pedestrian controls. Wear suitable protective clothing, heat resistant gloves, safety footwear and eye protection. Follow the product Safety Data Sheet and gas burner operating instructions.

For road authority works, confirm the specified material approvals, glass bead requirements, retroreflectivity and skid resistance before installation.

1. Clean and dry the surface

Remove all dirt, sand, oil, grease and loose material from the application area. The pavement must be sound, clean and completely dry.

If residual moisture remains, use a gas burner to dry the surface without scorching or damaging the pavement.



2. Set out the marking

Lay out the thermoplastic in its intended position and mark the application area.

Preformed stencils: Assemble the sections to form the complete design. Ensure adjoining pieces fit closely together, without gaps or overlaps.



Scored sheets: Use whole sheets or carefully break along the scored lines to create smaller sections. Support the material during separation to prevent unwanted cracking. Position adjoining sections with their edges touching, without overlapping.

Remove the material temporarily if primer is required.

3. Apply primer where required

For concrete, other non asphalt surfaces and very old or weathered asphalt, apply a compatible primer specifically formulated for thermoplastic pavement markings.

The primer should have low viscosity to wet and penetrate the prepared surface, promote adhesion and provide a sound bonding layer. It must be suitable for the substrate and compatible with the alkyd thermoplastic and the heat used during installation.



Use a primer accepted by Rayolite for the intended application. General purpose paint primers and concrete sealers must not be substituted without confirmation of suitability.

Apply at the primer manufacturer's specified coverage rate and follow its drying or curing requirements and application window. Drying time varies with the primer and site conditions. Never use a burner over wet primer or while flammable vapours remain.

4. Position the material

Place the thermoplastic in its final position on the prepared surface. Ensure the smooth side is facing down against the pavement and the textured side containing the factory applied reflective glass beads facing upwards. Check alignment and ensure all sections sit flat, with adjoining pieces fitted closely together.



5. Heat the thermoplastic

Using a gas burner approximately 10 to 20 cm above the material, heat slowly with regular sweeping movements to distribute heat evenly. Continue heating until the thermoplastic melts and flows onto the surface. Pay particular attention to edges and joins.



Signs of sufficient heating include:

1. The “T” heat indicator, where present, flows closed.
2. The material begins to bubble.
3. The colour becomes slightly darker.
4. The edges become rounded and bond to the surface.

Keep the burner moving. Avoid scorching, burning or prolonged heating in one position. Alkyd thermoplastic requires controlled heating to prevent thermal damage.

6. Apply additional reflective beads where required

Where required by the relevant Australian road authority, council or project specification, apply additional reflective glass beads evenly over the surface immediately after heating, while the thermoplastic remains molten and able to retain the beads.

Use beads suitable for thermoplastic markings, meeting the applicable edition of AS 2009 and any additional authority requirements. Select the bead type, grading, coating and application rate specified for the project.

7. Allow to cool and check adhesion

Allow approximately 10 to 20 minutes for the marking to cool before checking adhesion. Actual cooling time will depend on site conditions.

Once cooled, carefully use a knife or screwdriver at an edge to check whether the material can be lifted.

A properly bonded marking should resist lifting. If the material lifts, investigate the cause. Where insufficient heating is responsible, reheat the affected area until it melts and bonds, then allow it to cool and check again. Restore the specified surface bead and aggregate treatment where reheating has affected it.



Keep traffic and pedestrians off the marking until it has cooled, hardened and passed the adhesion check. Remove loose excess beads and aggregate before reopening the area.

Storage and handling

Store sheets and stencils flat, fully supported and in their original packaging in a cool, dry location. Protect from direct sunlight, moisture, excessive heat and loads that could distort the material.

Handle carefully to prevent unwanted cracking. Support larger sections when lifting and avoid dropping or sharply bending the material, except when separating scored sheets along their intended break lines.

Keep all pieces of each stencil together until installation.

Technical assistance

Contact Rayolite for advice on surface suitability, compatible primers, reflective beads or application requirements before installation.

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