



Part of Prismo Global

Solvent and Water Based Paints

# Spray/Manual Grades

## APPLICATION METHOD

### PRODUCT

Solvent Based Acrylic Paint, Solvent Based Epoxy Paint and Water Based Paint – Spray/Manual Grades

### STORAGE

- Keep dry and covered.
- Store away from direct sunlight.
- Protect from humidity, bad weather and frost.
- Store at temperature of 5 °C to 30 °C for solvent based paints and 10 °C to 30 °C for water based paints.

### APPLICATION CONDITIONS

- Surfaces should be clean, dry and free from defects, oil, scale, dirt or any other soiling that may affect adhesion or performance.
- Dirty or contaminated surfaces should be thoroughly cleaned prior to the application of solvent and water based paints to ensure the formation of a strong bond between the paint and the surface.
- It is further recommended (especially when overcoating existing line markings) that a test application is carried out to ensure good adhesion and compatibility with the substrate.
- Damp surfaces should be completely dried with high velocity driers. Insufficient drying will result in moisture forming between the paint and the surface creating poor adhesion.
- A substrate and air temperature of 5 °C to 45 °C is required for solvent based paints and 10 °C to 45 °C when applying water based paints to ensure proper curing of the paint, and adhesion between the material and the surface.
- The relative humidity should be  $\leq 80\%$  and the ambient temperature at least 5 °C above the dew point temperature.
- Refer to the relevant Technical Data Sheet (TDS) for drying times.
- If rain is imminent, do not apply as re-painting will be necessary.

## ASPHALT SURFACES

- No primer is required on asphalt unless otherwise stated in the TDS.
- Newly applied bituminous conglomerates can create problems with adhesion and/or blackening of the colour of the markings. It is recommended to wait at least 4–6 weeks before applying the paint and, even after this period, check that the substrate is suitable for application on a small area first.

## CONCRETE SURFACES

Applications for new or old concrete surfacing can give varying results. Each individual site should be assessed to evaluate the risks of detachment, and consultation with Vernisol™ is advised to discuss any necessary surface preparation required to minimise such risks. Surface preparation generally involves the use of CP PRIMER, light grit blasting or scabbling.

- Unless otherwise stated in the TDS, solvent and water based paints can be applied without a primer on newly laid concrete surfaces which have cured for at least four weeks and have ideally been exposed to traffic. The concrete must also be free from curing additives or surface residues and should have a suitable microtexture ( $> 0.5$  mm).
- Existing concrete surfaces (e.g.  $> 1$  year old) shall be inspected to determine the following prior to deciding what pre-treatment is required:
  - a) Does the substrate have a smooth appearance? If the concrete has been used by traffic the surface may become smooth and the aggregate polished. For example, concrete floors can have a polished appearance. The degree of polishing can be determined by assessing the skid resistance value, with a value of 40 or less indicating a polished surface. Pre-treatment by light scabbling or grit blasting will be required to roughen the surface.
  - b) Is the surface condition free from cracks and spalling failure? If present, the concrete surface must be repaired prior to the application of solvent and water based paints.
  - c) What is the texture depth? If the surface has a low texture depth ( $0.3 - 0.5$  mm), even though it is not necessarily polished, there is less of a 'keying' effect for good adhesion. Pre-treatment with a primer will be required to achieve good adhesion.
- **Note:** It is not always necessary to use mechanical abrasion and primer together.
  - a) If the surface has been mechanically abraded to form a key, and the surface has some microtexture ( $> 0.5$ mm), a primer may not be required.
  - b) If the surface is free from laitance, clean, dry and has some texture ( $0.3 - 0.5$  mm), with no aggregate polishing, a primer can be used without mechanical abrasion being needed.

**APPLICATION PROCESS (MANUAL)**

- Mask the edges of the area to be painted with a suitable masking tape.
- Open the paint pail and mix the paint until fully homogenised using a mechanically powered helical mixer of sufficient torque.
- Pour the material into a tray and apply the paint to the surface using a suitable roller, brush or adhesive spreader depending on the size of application and the equipment mentioned in the relevant TDS.
- The helical mixer can be cleaned before the paint cures by using a suitable solvent (for solvent based paint) or water (for water based paint).
- Remove masking tape before the paint is fully cured.

**APPLICATION PROCESS (SPRAY)**

- If required, mask the edges of the area to be painted.
- Open the paint pail and mix the paint until fully homogenised using a mechanically powered helical mixer of sufficient torque.
- See relevant TDS for dilution information if required.
- Transfer the paint to the spray machine.
- Using the manufacturer or specification application rates, set up the paint machine with the relevant tip size and pressure settings to achieve the correct paint thickness and line width. Line thickness and width can be checked by spraying a line at the application speed onto a flat metal plate. The thickness can then be checked by using a wet film thickness gauge. Refer to the relevant TDS for guidance on film thickness, coverage, and spread rate.
- If drop-on medium is being used, calibrate the dispensing system to achieve the required application rate.
- Apply the paint to the surface whilst maintaining a constant speed. Take care to avoid the following:
  - a) When using a walk behind machine, and moving too slowly, the paint will be too thick and cause problems such as asphalt curling and delamination on concrete surfaces.
  - b) If moving too quickly, the paint will be too thin, and re-painting will be necessary.
  - c) If using a truck, it is possible to 'outrun' the pump or paint tip by going too fast. The line will be too thin and will not hold the glass beads properly. Also, the excess speed can cause the beads to roll in the paint, covering them with a film of paint and reducing the retro reflectivity values.
- The helical mixer and spray equipment can be cleaned before the paint cures by using a suitable solvent (for solvent based paint) or water (for water based paint).
- Remove any masking tape before the paint is fully cured.