

PRODUCT

Two-component cold plastic based on pure MMA resin with powdered BPO catalyst

DESCRIPTION

- Suitable for the application of flat line and structured line markings including ribs, splatter/agglomerate, variable-profiles and dotted markings.
- Can be applied by extrusion, screed or hand applied methods.
- Product contains premixed glass beads.

STORAGE

- Keep the pail dry and covered.
- Protect from heat, frost, humidity, direct sunlight and adverse weather.
- Store at a minimum temperature of 5 °C, and a maximum temperature of 30 °C.

HEALTH AND SAFETY

- Please read technical and safety data sheets in full before applying the product.
- This product is intended for use by trained professionals only.
- Appropriate Personal Protective Equipment (PPE) must be worn, including suitable protective clothing, gloves and eye protection.

APPLICATION CONDITIONS

- Road surfaces shall be free from defects.
- Existing road markings that are going to be overlaid shall be removed.
- Surfaces should be clean, dry and free from dust, oils, solvents, fuels, anti-freeze salts, or any other soiling that may affect adhesion or performance.
- Dirty or contaminated road surfaces shall be thoroughly cleaned prior to the application of road markings to ensure the formation of a strong bond between the cold plastic and the road surface.
- A surface temperature of 5 °C – 40 °C is required when applying the product to ensure proper adhesion of the product to the substrate.
- For application on asphalt, primer is generally not required. However, very aged or polished asphalt will require priming. Allow at least 4-6 weeks prior to application on newly applied asphalt to prevent adhesion problems and/or blackening of the markings. Test a small section of the substrate after this time to ensure it is suitable for application.

- For application on concrete and cementitious surfaces, the substrate must be perfectly aged and free from release agents or dust-proof treatments. There must be no rising humidity or salts formation detected. Primer is generally required, but additional grit blasting or scabbling may be necessary if the surface is in a smooth or poor condition.
 - Vernisol™ Robur® Primer must first be mixed with a mechanically powered helical mixer until fully homogenised. The catalyst can then be added and mixed thoroughly before applying on the surface with a roller or spray machine.
- For application on stone, the surface must be cleaned well with an iron brush and high pressure compressed air, taking care to remove dirt even from the joints. The joints must be degreased well with an appropriate solvent to a minimum depth of 1 cm. It should be fully dried using hot compressed air before applying primer.
 - Vernisol™ Robur® Primer must first be mixed with a mechanically powered helical mixer until fully homogenised. 0.2 – 0.5% of adhesion promoting acid should be added and mixed fully. The catalyst can then be added and mixed thoroughly before applying on the surface with a roller or spray machine. **Do not mix the adhesion promoter directly with the catalyst, and ensure they are kept separate during storage/use to prevent an explosive reaction.**
 - Please note: Catalysis may take longer due to the presence of the adhesion promoter, especially at lower temperatures.
- When applying on extremely absorbent substrates, a second layer of primer is necessary. Additionally, before the primer cures, it is suggested to over-apply with a maximum quantity of 200 g/m² of 0.3 – 0.8 mm quartz sand.
- The primer should be fully cured before applying the road marking product. If the primer is being applied more than 8 hours before the road marking product, the primed surface must be dusted with dry sand before it cures. See Robur® Primer TDS for information on dosage, curing time and additional data.

We recommend test trials to check compatibility and adhesion before application.

APPLICATION PROCESS

The material is applied using self-propelled equipment, manual screed box/adhesive spreader or a purpose-built vehicle equipped with a two-component extrusion system for applying flat line and structured/profiled/dotted MMA markings.

1. Determine the amount of BPO catalyst required based on surface temperature.

Surface Temperature	Powder Catalyst	Pot Life	Curing Time
5 °C	3%	21 minutes	70 minutes
10 °C	2%	18 minutes	50 minutes
20 °C	1%	15 minutes	35 minutes
30 °C	0.5%	8 minutes	20 minutes
40 °C	0.5%	6 minutes	18 minutes

2. Open the pail and mix the product until fully homogenised using a mechanically powered helical mixer of sufficient torque for at least 2 minutes.

3. Catalyst addition:

- **If using an automatic two-component extrusion machine**, pour the mixed product into the tank, and pour the correct amount of catalyst into the separate compartment. These machines are designed to introduce the catalyst outside of the main tank just before extrusion to ensure both components are delivered together at the nozzle and begin curing on application. Do not add the catalyst directly into the tank as the curing process will begin immediately, leading to premature machine failure (not attributable to the product).
- **If using a semi-automatic/self-propelled machine or hand-held tools**, thoroughly mix the correct amount of catalyst directly into the pail using the mechanically powered helical mixer for at least 2 minutes. Once the catalyst has been added, the curing process will begin, and the material must be used straight away.
- Please note: If the catalyst has not been well-mixed or its quantity is insufficient, lines will get dirty very easily and will have reduced mechanical and physical properties.

4. Applying the product:

- **If using an automatic two-component extrusion machine** (for major longitudinal marking works), adjust the machine setting prior to application to ensure the correct quantity of cold plastic and catalyst are extruded. Ensure the machine is fitted with the correct tool to produce the required line type. Maintain a uniform vehicle speed as the material is extruded. Very high speeds are not advisable as this will reduce the width of the road marking and introduce voids into the material. Poor application will reduce performance.
- **If using a semi-automatic/self-propelled machine** (for smaller-scale works), ensure the correct tool is fitted to produce the required line type. The material can then be poured into the box and applied at a uniform speed.
- **If using a hand-held screed box** (for smaller-scale flat lines), pour the product into the screed box and apply at a uniform speed.
- **If using an adhesive spreader** (for small area applications), first tape the area to be marked and carefully pour the mixed product onto the surface to be applied. Use a flat or notched adhesive spreader to apply a uniform layer of the product in the marked area, taking care not to crack the surface film. Remove the tape before the product is completely cured.

5. Glass bead/aggregate application:

- Immediate retroreflectivity/skid resistance is achieved with either a built-in pressurised drop-on system or manual hand-held dispenser. The drop-on material must be broadcasted **immediately** after cold plastic application to allow proper embedment before the product cures and the pot life expires. For optimal embedment, broadcast the drop-on material around the halfway point of the product's pot life (refer to the table in step 1).
- Please note: Applying the drop-on after the pot life has expired will prevent proper embedment and compromises the overall product performance.

6. The mixer, machines and tools must be cleaned immediately before the material cures using a suitable solvent. Failure to comply with cleaning requirements can cause premature wear and damage to machinery (not attributable to product).
7. Ensure the marking is fully cured before opening to traffic to prevent blackening.

For any questions, problems or advice, please contact Vernisol™.