

Date: 18th July 2018

METHOD STATEMENT
FOR THE INSTALLATION AND QUALITY CONTROL OF
PUMACOAT EA ORANGE 08-E-55 TOP COAT SURFACING SYSTEM

1. General

- 1.1 The installation and composition of PumaCoat Top Coat Surfacing System shall be as stated in this Method Statement.
- 1.2 PumaCoat Surfacing System consists of a polyurethane modified methyl methacrylate binder and pigment, cured with BPO hardener powder.
- 1.3 A programme of work shall be agreed with the Purchaser prior to commencement of installation. Requirements for the provision of sufficient working area, plant, safety and, if required, protection to the System shall be agreed.
- 1.4 The current Method Statement together with all necessary Health & Safety Data Sheets and COSHH Risk Assessment for the Works shall be deposited with the Purchaser and maintained on-site.

2. Quality Control

- 2.1 Every batch shall be subject to visual quality control checks to ensure compliance with the system specification.
- 2.3 Each component received on-site shall be logged and stored to prevent contamination or deterioration, in accordance with the manufacturer's instructions.

3. Suitability of the Road Surface

- 3.1 The system is deemed suitable for use as a top coat (seal coat) on Hitex PumaGrip MMA surfacing.
- 3.2 Refer to the PumaGrip Installation Method Statement for road surface suitability.

4. Traffic Management

Traffic Management shall be in accordance with Department of Transport Traffic Signs Manual Chapter 8 current edition, or as agreed between the Purchaser and Installer.

5. Preparation of the Road Surface

- 5.1 The areas to which the system is to be applied shall be clearly defined and marked by the Purchaser prior to commencement of work on-site.
- 5.2 Any imperfections in the existing surfacing not acceptable to the Installer shall be reinstated with a material approved by the Purchaser in consultation with the Installer.
- 5.3 The existing surfacing shall be clean, dry and free from ice, frost, loose aggregate, oil, grease, road salt, aggregate and other loose matter that may impair the adhesion of the system.

- 5.4 In particular, where PumaCoat seal coat is applied immediately following an application of the PumaGrip MMA resin system, any excess or loosely bonded aggregate must be fully removed before starting the PumaCoat application. Mechanical brushing and vacuuming or suitable blowers can be used to remove excess or loosely bonded aggregate.
- 5.5 Where the existing surfacing does not comply with Section 5.3 it shall be cleaned by the Installer or others, by grit blasting, high pressure water jetting, low pressure water/abrasive blast cleaning, scarifying, scabbling or other means approved by the Purchaser. To remove dust and other loose matter the road surface should be vigorously brushed or treated with hot compressed air. Any oil visible on the road surface shall be removed by washing and scrubbing with a suitable detergent solution followed by flushing with clean water or by other suitable means.
- 5.6 Existing road markings, ironwork, road edges of area to be treated and road studs shall be suitably masked.

6. Weather Conditions

- 6.1 Installation of the system shall only be carried out with a road surface temperature of 0°C to 40°C.
- 6.2 Ambient and road surface temperatures shall be recorded at the start and, if the weather is variable, during the installation process.
- 6.3 Road surfaces shall be dry before and during the installation of the system.
- 6.4 The curing period for the prevailing weather conditions shall be noted on the daily record sheets.

7. Installation

- 7.1 Installation of the system shall only be carried out by Approved Installers with trained operatives under competent supervision.
- 7.2 System Installation Procedure:
- 7.2.1 PumaCoat Top Coat surfacing is a two-component cold applied chemically curing polyurethane modified methyl methacrylate compound. PumaCoat consists of a pre-accelerated base resin with pigments and a powder catalyst (BPO), supplied in pre-weighed quantities ready for on-site mixing. The total kit size will be determined by the amount of BPO powder catalyst required for the installation temperature, see following tables:

Substrate temperature (°C)	PumaCoat pack size (kg)	BPO powder catalyst (g)
0 – 5	10	240
5 – 15	10	180
15 – 25	10	120
25 – 40	10	60

Substrate temperature (°C)	PumaCoat pack size (kg)	BPO powder catalyst (g)
0 – 5	20	480
5 – 15	20	360
15 – 25	20	240
25 – 40	20	120

- 7.2.2 The catalyst level is critical – the minimum catalyst level is 60g per 10kg pail (120g per 20kg pail). Using less catalyst will cause partial curing and lead to product failure. Excessive levels of catalyst can lead to premature gelling and curing, which can lead to reduced adhesion to the substrate and product failure.
 - 7.2.3 The system is available in a single grade for use at temperatures from 0°C to 40°C
 - 7.2.4 PumaCoat pails should be kept out of direct sunlight during storage and use. Storage at elevated temperatures can lead to degradation of the system. Application of hot PumaCoat material can lead to premature gelling or curing, which can adversely affect product performance.
 - 7.2.5 Immediately prior to use, stir the binder thoroughly using a mechanical mixer until the resin is fully homogenised. Add the correct amount of BPO powder catalyst and mix thoroughly for at least 30 seconds. Ensure that the binder at the bottom and sides of the container is completely mixed in. Do not delay once the catalyst has been added, a chemical reaction is occurring that if left in the pail will ruin the mix.
 - 7.2.6 The mixed binder and catalyst shall then be spread onto the dry prepared road surface uniformly with a flexible flat bladed squeegee at a minimum coverage rate, which will vary according to the texture and porosity of the road surface. The coverage rate is typically 0.9 – 1.2 kg/m² depending on the aggregate being coated and the underlying substrate.
 - 7.2.7 Once the PumaCoat has been squeegeed out evenly, immediately back roll the PumaCoat with a roller. For overcoating fine aggregates, a medium pile roller should be sufficient, but for larger aggregates, a long pile roller should be used.
 - 7.2.8 If there are any delays, the squeegee must be checked before any work restarts to ensure that no cured material is left on the squeegee, which could lead to low coverage rates.
 - 7.2.9 The rollers should also be regularly inspected and replaced, as PumaCoat will cure on the rollers, making them ineffective for further use. It is strongly recommended that the roller is replaced regularly throughout the application, so adequate stocks of rollers should be obtained prior to starting work.
 - 7.2.10 On more open textured surfaces a greater rate of spread may be required to ensure adequate coverage of the surface.
 - 7.2.11 The masking tape shall be removed as the work progresses, before the binder begins to gel.
 - 7.2.12 Cure times can vary according to material temperature, ambient temperature, substrate temperature and how long the catalysed mix is left in the pails. If more working time is required, decant the PumaCoat into smaller pails and reduce the catalyst addition weight accordingly, to obtain a smaller volume of catalysed material to work with.
 - 7.2.13 Tools can be cleaned with acetone and if cleaned promptly can be re-used.
- 7.3 System Installation Checks by the Installer
- 7.3.1 A visual check shall be carried out for uniform surface texture, blemishes and any discernible faults.
 - 7.3.2 A check shall be made on completion of each site to determine the quantities of material used.

7.4 Maintenance and Repair

7.4.1 In the event that damage occurs during the installation or during service the system shall be repaired as follows:

7.4.1.1 The damaged and or de-bonded system shall be cut back to firmly adhering material, squaring off the area to be reinstated.

7.4.1.2 The area to be repaired shall be cleaned, dried and the perimeter masked, allowing a 50 mm overlap on the existing well adhered system.

7.4.1.3 The system shall then be applied in accordance with Section 7.2.

8. Aftercare

8.1 Any remaining masking shall be removed and the system allowed to cure. During the curing period, no disturbance or trafficking of the system shall be permitted. Before opening to traffic at the end of the curing period the site shall be inspected for any possible defects.

8.2 The Installer shall endeavour to inspect the surfacing after 24 hours and carry out any necessary remedial work, or further sweeping at a time to be agreed with the Purchaser.

End of Method Statement