

HMG Powder Coatings Limited

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Grey CPG Holding Primer

| Ref.: 837-2R715C-387 | | | | |
|----------------------|---|--|--------------|--|
| Product Description | A polyester based powder coating, designed as a holding primer coat to give corrosion protection over a number of substrates. | | | |
| | It forms the base layer of a two-coat system and must be coated with a second coat, usually a polyester coating, for exterior use. The product was originally designed as a holding primer for a water-based liquid coating top coat. | | | |
| | Unlike epoxy zinc-rich primers, the CPG Primer can be fully cured before the top coat is applied making the system suitable for applications requiring liquid paint top coats or where the requirement is for a general primer for a variety of top coats. | | | |
| Key Benefits | Good corrosion resistance Excellent surface wetting Excellent adhesion Excellent flow Good out-gassing properties Excellent overcoatability and intercoat adhesion without sanding Contains no ecologically toxic materials | | | |
| Powder Properties | Chemistry | A thermosetting polyester resin system. | | |
| | Application | Corona electrostatic spray. | | |
| | Coating Thickness | General recommendation is 60-100 microns (μ m), with a minimum thickness of 60 μ m. | | |
| | Gloss (ISO 2813) | $30\% \pm 5$ on a 60 degree head | | |
| | Specific Gravity | 1.60 ± 5 g/cm ³ | | |
| | Coverage | Approximately 10.4 m ² /kg at 60 microns film thickness. | | |
| | Storage & Shelf Life | When stored in a cool (<20°C), dry environment: 12 months. | | |
| | Curing Schedule | 10 minutes at 190 Celsius (object temperature) | | |
| Pretreatment | To ensure maximum adhesion the substrate must be thoroughly clean, free from grease, oil, rust, mill scale or any other contaminant. Recommended surface preparation is by solvent or chemical degreasing, followed by a chemical treatment, typically a zinc phosphate system, prior to powder coating. If using a chemical treatment, discuss the performance requirements with the treatment chemical supplier. HMG recommends that the coating system be tested and its applicability confirmed prior to use. | | | |
| Mechanical Tests | Unless otherwise specified, all tests were carried out under laboratory conditions on 0.8mm degreased and zinc 1hosphate steel panels. A powder coating DFT of 60-70 microns was used, followed by a second coat of RAL 9010 827 Architectural Polyester to 60-70 microns. | | | |
| | Hardness (HGP Primer) | ISO 2815 Buchholtz Indentation | >80 | |
| | Flexibility (HGP Primer) | ISO 1519 Cylindrical Mandrel | Pass >5mm | |
| | Adhesion | ISO 2409 2mm Crosshatch | Pass Gt0 | |
| | Cupping (HGP Primer) | ISO 1520 Erichsen | Pass >5mm | |
| | Impact (HGP Primer) | BS 3900: Part E7 | >25kg cm (N) | |
| | Intercoat Adhesion (Powder) | Hoffman Scratch Test | >2000g | |
| | Intercoat Adhesion (Liquid) | ISO 2409 1mm Crosshatch | Pass Gt0 | |

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| Corrosion and Durability | Neutral Salt Fog | ASTM B117 (600 hours) a) Steel, iron phosphate with final rinse | Corrosion creep <2mm from scratch Adhesion – Gt0 | | |
|--|--|---|---|--|--|
| | Boiling Water | 2 hours boiling water | No defects or detachments | | |
| | Humidity | BS 3900 Part F2 | More than 1000 hours without effect | | |
| Colour Availability | Grey, approximately RAL 7015. | | | | |
| Recommendations for Use (zinc phosphated steel) | Care should be taken to ensure an adequate key for the second coat; over-curing the primer or handling the surface without gloves can compromise the inter-coat adhesion. | | | | |
| | • Degrease and phosphate the steel according to the chemical manufacturer's instructions | | | | |
| | Dry the substrate | | | | |
| | Apply CPG Primer to a coating build of at least 60 microns | | | | |
| | Cure the primer, but do not over-bake | | | | |
| | Apply and cure the top coat as soon as possible after applying primer. Discuss application parameters with the spray equipment supplier; generally reducing kV and μA to as low as possible will help penetration to difficult recesses. Handle only with gloves over-coating. The second coat may be applied whilst the primer is still warm. | | | | |
| | Should over-curing have occurred or where handling has been unavoidable, the primer may need to be slightly abraded. | | | | |
| Restriction of Hazardous Substances (RoHS/RoHS2) | This product range conforms to the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS and RoHS2) Directive. It does not contain any compounds of lead, mercury, cadmium or hexavalent chromium; nor does it contain polybrominated biphenyls (PBBs) or polybrominated diphenyl ether (PBDE). | | | | |
| Health & Safety | This product is intended for use only by professional applicators in industrial environments. Consult the relevant health and safety data sheet indicated in the box label before use. | | | | |



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