Thermaset Ltd.
MANUFACTURERS OF POWDER COATINGS

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Thermaprime AGP 135 Anti-gassing Powder Coating Primer

Product Description:

Thermaprime AGP 135 is an epoxy-polyester anti-gassing powder coating primer designed for use on problem substrates that are prone to out-gassing such as cast aluminium or steel, galvanized steel, Zamak etc.

Colours Available:

Light grey is available as standard. Other colours can be manufactured to order.

Powder Properties:

Chemical type	Thermosetting epoxy-polyester hybrid resin system.
60 ^{o} Gloss (EN ISO 2813)	70-80 %
Specific Gravity	1.50-1.65 g/cm^3
Particle size	Suitable for electrostatic spray
Stoving schedule	AGP 135 should be fully cured before applying a top-coat; Minimum 10 minutes @ 180^{o}C peak metal temperature
Storage and shelf life	12 months when stored in cool (below 25^{o}C) dry conditions. Open boxes must be resealed.

Substrate Preparation:

For maximum adhesion the substrate must be thoroughly cleaned of grease, rust etc. Recommended cast steel preparation is by solvent or chemical degreasing followed by grit blasting to minimum SA 2.5, Rz 35-65µm, Ra 6-10 µm then degreasing and phosphating. For cast aluminium recommendation is for solvent or chemical degreasing followed by sweeping then degreasing and chromating (chromate-free pretreatments are available). If using chemical pretreatments, follow advice on performance requirements from the pretreatment chemical supplier.

Application:

Thermaprime AGP 135 should be applied by corona electrostatic spray equipment, with an even dry film thickness of 60-80 µm. Minimum of 60 µm is recommended to achieve good protection.

Topcoat Application

Thermaprime AGP 135 should be fully cured before applying a top-coat. Apply and fully cure the topcoat within 24 hours of applying primer- this can be whilst the primer is still warm. For optimum performance the system **Thermaprime AGP 135** + top-coat must be fully cured to the top-coat specification.
Alternatively fully cured **Thermaprime AGP 135** may be used as a holding primer for no more than one week before over-coating. If used as holding primer the surface must be cleaned before over-coating as detailed for contaminated surfaces below.
Care should be taken not to contaminate primer surface before over-coating. Should oil contamination by handling without gloves or over-curing of primer have occurred, the primer may need degreasing with a mild detergent and/or slight abrasion with 800 sandpaper. Dry and remove dust by blowing with clean dry air..

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Test Conditions:

Unless otherwise specified, all tests have been carried out under laboratory conditions on 0.8mm degreased and zinc phosphated steel panels. A **Thermaprime AGP 135** dry film thickness of 60-70 microns was used, followed by a topcoat of RAL 9010 architectural polyester of 60-70 microns. Actual product performance will depend on the circumstances under which the product is used.

Mechanical Tests:

Flexibility (cylindrical mandrel)	ISO 1519	Pass minimum 5mm
Buchholz Hardness	ISO 2815	Pass minimum 80
Impact	ISO 6272-2	Pass minimum 25 N
Erichsen cupping	ISO 1520	Pass minimum 5mm
Adhesion (2mm cross hatch)	ISO 2409	Pass Gt 0

Corrosion Tests:

Constant Humidity	ISO 6270	Pass 1000 hours.
Boiling water	2 hours	No defects or detachments.
Neutral Salt Spray	ASTM B117	Pass 1000 hours. Corrosion creep < 2mm from scribe Adhesion Gt0

.Health and Safety Precautions:

This product is intended for use only by professional applicators in industrial environments. Consult the relevant Material Safety Data Sheet available from Thermaset Limited before use.

Restrictions of Hazardous Substances (RoHS2):

Thermaset Limited Thermaprime Powder Coatings are suitable for use on items covered by Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (Directive 11/65/EU, ROHS 2). This product contains none (or less than the maximum allowed amount) of the following restricted chemicals:-
Lead, Mercury, Cadmium, Hexavalent Chromium or their compounds. Poly-brominated biphenyl (PBB) or Poly-brominated diphenyl ether (PDBE) flame retardants. Bis(2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP)