Epoxy-Polyester Ripple (Leatherette) Texture Powder Coating

Date: 24/09/2018

Product Description:
Thermaset Limited offer a range of epoxy-polyester ripple (leatherette) texture powder coatings designed for interior use. This range is specially formulated on selected epoxy and polyester resins and pigments to give a tough decorative finish, pleasant to touch and so are often used on office furniture, shelving, handrails and electrical enclosures etc. The structured finish may be used to hide small imperfections in the substrate.

Substrate Preparation:
For maximum adhesion the substrate must be thoroughly cleaned of grease, rust etc. by shot blasting, solvent or chemical degreasing. For maximum protection it is essential to pretreat the substrate prior to the application of Thermaset Limited epoxy polyester ripple powder coatings.
Aluminium components should receive a full multi-stage chromate conversion coating or similar chrome-free pretreatment to clean and prepare the substrate. Detailed advice should be sought from the pretreatment supplier.
Galvanized steel requires multi-stage pretreatment with either zinc phosphate or chromate conversion. Depending on the type of galvanizing, degassing or use of anti-bubbling additives may be required. Detailed advice should be sought from the pretreatment supplier.
Ferrous substrates require iron or zinc phosphate pretreatment. Detailed advice should be sought from the pretreatment supplier.

Application:
Thermaset Limited epoxy-polyester ripple powder coatings can be applied by manual or automatic electrostatic spray equipment, general recommendation is for a film thickness of 90-110 microns. The ripple appearance is affected by film thickness so it is important to maintain a tightly controlled dry film thickness.

Powder Properties:
Type Thermosetting epoxy-polyester resin system.
Gloss Visual gloss, semi-gloss or matt.
Specific Gravity 1.3 to 1.8 g/cm³ depending on colour.
Particle size Suitable for electrostatic spray
Stoving schedule See box label for recommended curing conditions.
Typical values are;
10 minutes @ 180°C peak metal temperature
Storage and shelf life 12 months when stored in cool (below 25°C) dry conditions. Open boxes must be resealed.
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Test Conditions:
Unless otherwise specified, all tests have been carried out under laboratory conditions on 0.8mm aluminium chromated panels and are given for guidance only. Actual product performance will depend on the circumstances under which the product is used. A powder coating dry film thickness of 90-100 microns was used.

Mechanical Tests:
- Flexibility (cylindrical mandrel): ISO 1519 Pass minimum 5 mm
- Impact: ISO 6272-2 Pass minimum 25 Kg cm
- Erichsen cupping: ISO 1520 Pass minimum 5 mm
- Adhesion (2mm cross hatch): ISO 2409 Pass G1 0

Chemical Tests:
- Humidity: ISO 6270 Pass 1000 hours
- Boiling water: 2 hours No defects or detachments
- Neutral Salt Fog: ASTM B117 Pass 250 hours, < 2mm creep from scratch
- Mortar resistance: EN 12206-1 Easy to remove, no staining.

Exterior Durability:
Not suitable for exterior exposure.

Chemical Resistance:
Generally good resistance to acids, alkalis and oil at normal temperatures.

Health and Safety Precautions:
This product is intended for use only by professional applicators in industrial environments. Consult the relevant Material Safety Data Sheet.

Restrictions of Hazardous Substances (RoHS2):
Thermaset Limited Epoxy-Polyester Ripple Texture 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). Products 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).
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