Polyglass VE Ecoflake

Product reference: 2/70

Product title: Polyglass VE Ecoflake

Valid from: 10th August 2016

Last reviewed: May 2019

Type

A glass flake styrene free vinyl ester acrylicco-polymer.

Suggested use

Immersion environments where superior resistance to chemical attack is required. Polyglass VE Ecoflake is suitable for many chemical environments within the full pH range, it has excellent resistance to demineralised water, hydrocarbons and good resistance to many solvents. For chemical resistance information refer to the chemical resistance data for Polyglass VE/600 series. This product has good UV resistance and good flexibility at dry film thicknesses of less than 1.25mm.

Health & safety

Before handling or using this product the material safety data sheet should be read and all precautions observed.

Chemical resistance

Refer to the chemical resistance list (600 series). Affected by some highly polar solvents and some solutions having a high pH above 50°C.

Surface preparation

Metals: Grit blast to ISO standard 8501-1 Sa 2½ near 3 or equivalent. (For full details refer to Corrocoat Surface Preparation SP1.)

Concrete: Refer to Corrocoat SP5.

Application equipment

Airless pump of 45:1 ratio or greater. Fit leather and PTFE seal combination and remove all fluid filters. 10mm diameter (3/8") nylon lined hose with 6mm whip end, large bore gun with reverse clean spray tip. Typical tip size is 0.7 to 1.2 (28 to 48thou) with a 45° to 60° fan. Size of tip and fan angle will vary dependent upon the nature of the work. Pressure to suit hose lengths and working conditions. (circa200bar).

Brush application: is not recommended.

Application

Dependent on intended use and site conditions, Polyglass VE Ecoflake is normally applied direct to the surface wet on wet at films between 500 and 1200 microns. Single coat applications are acceptable. Where logistics demand, primer PPA may be used or PPV for temperatures over 85°C. For further details see Polyglass Application Data Sheet.

Recommended DFT

Between 500 and 3000 microns dependent upon duty and environment. This material is a barrier coating and the thickness needed is dependent upon service conditions.

Typical dry film thicknesses:

- Atmospheric Service: 600-800 microns
- Aqueous and Marine Immersion: 850-1200 microns
- Highly Corrosive and Aggressive Chemicals: greater than 1250 microns

Mixing ratio / mixing

98:2 base to hardener. For inhibitor use and mixing instructions refer to Polyglass Application Data Sheet. Adding inhibitor after the catalyst will ruin the product.

Pot life

Circa 50 minutes at 20°C but may be varied by use of inhibitor or special manufacture for low application temperatures, refer to Polyglass Application Data Sheet.
Thinners
Polyglass VE Ecoflake is adversely affected by the addition of solvents and their use is prohibited. Thinning can be achieved by the addition of no more than 1 litre of vinyl toluene monomer per 20 litres of Polyglass. It should be noted that dilution with vinyl toluene may affect hold up and chemical resistance.

Packaging
10 and 20 litre composites.

Storage life
Base and catalyst (Hardener) 6 months, stored at temperatures below 20°C, away from heat sources and out of direct sunlight. Frequent temperature cycling will shorten storage life. See ‘other information’ in the Corrocoat ‘Tech Manual’ for extension of shelf life.

Colour availability
Std. Off White or Translucent Brown. Other colours are available on request but the addition of dyes adversely affects chemical resistance and air inhibition suppressant is required for colour stability.

Theoretical spreading rate
1.33m²/litre at 750 microns.

Volume solids
This material contains volatile liquid convertible to solids. Volume solids obtained will vary dependent upon polymerisation conditions. Nominally 99% of the product is convertible to solid.

Practical coverage rate
1.06m²/litre at 750 microns.

NOTE: This information is given in good faith but rate may vary significantly dependent upon environmental conditions, the geometry, nature of work undertaken and the skill and care of application. Corrocoat accept no responsibility for any deviation from this value.

Specific gravity
Polyglass base: 1.18gms/cc.
Hardener: 1.07 gms/cc.

Catalyst type
Methyl Ethyl Ketone Peroxide, type P2-45.

Mixing ratio
98:2 base to hardener, refer to Application Data Sheet for inhibitor levels.

Flash point
53°C.

Hardness
>40 Barcol after full cure.

Adhesion
>10 MPa (ASTM D4541)

Temperature limits
110°C immersed.
165°C non-immersed.
No known lower limit.

Abrasion resistance
192 mg loss/1000 cycles/1000 gm load. (H18 wheel).

Overcoating
It is important to observe maximum overcoating times and note these will vary substantially with climatic conditions. Minimum, as soon as gel has occurred and whilst still tacky. Maximum, at 20°C 48 hours.
Strong ultra-violet/sunlight will substantially reduce overcoating time. Once maximum overcoating time has been reached, adhesion values attained by any subsequent coat will reduce dramatically. Should this occur overcoating should be treated as a repair, with the coating flash blasted to provide a physical key. Vinyl Toluene cannot be used to reactivate the surface of this product and may impair adhesion. Take care to avoid contamination before application of subsequent coats. Ensure ventilation during cure.

Curing time
With standard inhibitor level, tack free circa 6 hours, full cure 3-4 days at 20°C, but may be immersed in many environments after 24 hours.

Cleaning solvent
Methyl Ethyl Ketone, Methyl Iso Butyl Ketone - before gel.

All values are approximate. Physical data is based on the product being in good condition before polymerisation, correctly catalysed and full cure being attained. Unless otherwise stated, physical data is based on a test temperature of 20°C, test results may vary with temperature. Information regarding application of the product is available in the Corrocoat manual. Should further information be required, please consult Corrocoat Technical Services.