

POLYGLASS

Polyglass VE Pipe Grade

Product reference: 2/28

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Product title: Polyglass VE Pipe Grade

Valid from: 14th August 1997

Last reviewed: May 2019

Type

A two-pack cold cured vinyl ester/acrylic co-polymer enhanced with flaked glass, specifically formulated to be applied using a centrifugal pipe rolling rig.

Suggested use

Immersed environments where superior resistance to chemical attack is required, VE is suitable for most chemical environments within the pH range of 0 to 13 and is unaffected at temperatures up to 90°C by demineralised water. It also has excellent resistance to most solvents. May be used in aggressive atmospheric or spillage conditions.

Limitations

Affected by some highly polar solvents and solutions exhibiting high pH at temperatures above 50°C.

Health & safety

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

Surface preparation

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

Concrete: Grit blast to remove surface laitance. See Corrocoat Surface Specification SP5.

Application equipment

Specialist pipe rolling equipment.

Application

Dependent on intended use and prevailing site conditions, but Polyglass VE Pipe Grade is normally applied in wet films between 1000 and 2000 microns. For further details see Polyglass Application Data Sheet.

Mixing ratio / mixing

98:2 base to hardener. For inhibitor use and mixing instructions refer to Polyglass Application Data Sheet.

Pot life

Variable to suit site conditions, refer to Polyglass Application Data Sheet, typically for Pipe Grade 25-30 minutes at 20°C.

Thinners

The performance of Polyglass VE Pipe Grade can be adversely affected by the addition of solvent thinners and their use is prohibited. Thinning can be achieved by the addition of not more than 5:100 styrene monomer to Polyglass Pipe Grade by volume i.e. maximum 1.25 litres styrene per 25 litres Polyglass Pipe Grade. It should be noted that dilution with styrene may affect chemical resistance.

Packaging

20 litre composites.

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Storage life

6 months stored at temperatures below 20°C and away from heat sources and direct sunlight. Frequent temperature cycling will shorten storage life. See other information for extension of shelf life.

Colour availability

Unpigmented (Translucent Brown) and Off White only. Other colours are not available and it should be noted that the addition of dyes will adversely affect chemical resistance.

Recommended DFT

Between 750 and 3000 microns dependent upon environment.

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 99.05% of the contents are convertible to solid.

Practical spreading 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 and nature of work undertaken and the skill and care of application. Corrocoat accept no responsibility for any deviation from these values.

Specific gravity

VE Pipe Grade base: 1.18 gms/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

28°C.

Hardness

45 Barcol.

Elongation at break

0.4%.

Tensile strength

26.7 N/mm² (3874 psi).

Thermal coefficient of linear expansion

19.7 x 10⁻⁶/°C.

Thermal conductivity

0.398 W/m²K.

Dielectric strength

18 - 25 x 10³ V/mm

Adhesion

> 10 MPa (ASTM D4541)

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Temperature limits

110°C immersed. 175°C non-immersed. No known lower limit.

Overcoating

May take place as soon as the previous coat has gelled and whilst still tacky. Maximum overcoating time is 48 hours. For times in excess of 48 hours and for overcoating on concrete substrates, refer to Corrocoat for special instructions.

Curing time

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

Cleaning fluid

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

Reviewed: 07/2011
Reviewed 02/2014 (No changes)
Reviewed 05/2016 (No changes)
Reviewed 05/2019

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.