

Polyglass

Product reference 2/12

Product title Polyglass Pipe Grade

Valid from 12th April 2004

Type

A polyester glass flake pipe coating, specifically for application using centrifugal pipe rolling techniques.

Suggested use

Internal pipe coating for use in hydrocarbons, aqueous, marine and corrosive chemical service environments below 85°C.

Limitations

Not suitable for protection against polar solvents, demineralised water and where pH conditions are below 1 or above 12. Refer to chemical resistance chart.

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 standard 8501-1 SA 2½ SSPC-SP 10 (for full details refer to Corrocoat Surface Preparation SP1).

Concrete: Refer to Corrocoat data sheet SP5.

Application equipment

Specialist pipe rolling equipment.

Application

Is dependent on intended service, but Polyglass Pipe Grade is normally applied in a single wet film at between 1000 & 2000 microns. Primer is not normally used. For further details obtain Corrocoat pipe rolling instructions or refer CC training manual.

Recommended DFT

750 microns in marine conditions and up to 2500 microns in highly corrosive conditions, chemical or abrasive environments.

Catalyst type

Methyl ethyl ketone peroxide, Type P2.

Mixing ratio/mixing

98:2 base to hardener. For mixing instructions and inhibitor use refer to Polyglass data sheet 6.20A. Do not use inhibitor unless necessary and add before catalyst when used.

Pot life

Typically 25-30 minutes at 20°C. May be adjusted with inhibitor or manufactured specifically to suit specific requirements.

Thinners

The performance of Polyglass Pipe Grade is adversely affected by the addition of solvent thinners and their use is prohibited. Thinning may be achieved by addition of not more than 5% styrene monomer to PPG by volume i.e. 1.00 litre styrene per 20 litres PPG.

Packaging

20 litres base and catalyst is standard, 10 litres available.

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Storage life

Base 12 months, hardener (catalyst) 6 months stored at temperatures below 24°C and away from heat sources and direct sunlight. Frequent temperature cycling will shorten storage life.

Colour availability

Off-white as standard.

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 contents are convertible to solid.

Practical spreading rate

1.0m²/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 accepts no responsibility for any deviation from these values.

Specific gravity

Polyglass Pipe Grade base: 1.19 gms/cc.
Hardener: 1.07 gms/cc.

Flash point

26°C.

Hardness

40 Barcol.

Tensile strength

25.5 N/mm² (3700 psi).

Elongation at break

1.3% in aqueous immersion.

Thermal coefficient of linear expansion

13.968 x 10⁻⁶ /0C.

Dielectric strength

18 - 25 x 10³ V/mm.

Thermal conductivity

0.38 W/m0K

Temperature limits

85°C immersed, 120°C non-immersed. No known lower limit.

Overcoating

Normally applied as a single coat but where necessary it should take place as soon as the previous coat has gelled and whilst still tacky. Maximum overcoating time is 48 hours at 20°C.

Curing time

Without inhibitor, tack-free 6 hours, full cure 3-4 days at 20°C, but may be immersed in many environments after 12 hours. Low level through pipe ventilation should be maintained during cure.

Cleaning solvent

Methyl ethyl ketone, methyl iso butyl ketone - before gel.

Physical data is based on the product being in good condition before polymerisation, correctly catalysed and full cure being attained. Information regarding application of the product is available in the Corrocoat manual. Should further information be required, please consult Corrocoat Technical Services.