POLYPLEX 915 CIPP RESIN (FILLED)

Technical Datasheet

PRODUCT CODE : C220002

POLYPLEX 915 is a medium reactivity, pre-promoted, thixotropic, Alumina Trihydrate (ATH) filled, isophthalic, unsaturated polyester resin dissolved in styrene. It has been specifically designed and refined for pipe relining (CIPP) applications. The resin shows a long initiated pot life at room temperature, and rapid cure at elevated temperatures when combined with typical initiators such as Perkadox 16 and Tertiary Butyl Perbenzoate (TBPB).

FEATURES

- High Heat Distortion Temperature (HDT)
- Long catalyzed pot life at room temperature
- Excellent hydrolysis resistance
- Contains Alumina Trihydrate filler

BENEFITS

- Good heat resistance and load bearing ability at elevated temperatures
- Suitable for operations where delays occur between pre-impregnation of CIPP liners and pipeline installation
- Properly cured resin suitable for continuous water contact in service
- Reduces exotherm in thick composite liner sections

Technical advice should always be obtained regarding any specific application regarding chemical resistance.

TYPICAL PROPERTIES IN LIQUID STATE @ 25°C

PROPERTY	TYPICAL VALUE
Brookfield viscosity @ 25°C, RVT Spindle 4/5 rpm	13000 – 15000 cP
Brookfield viscosity @ 25°C, RVT Spindle 4/50 rpm	3100 – 3600 cP
Gel Time (60°C) – 100 g resin/1 g Perkadox 16 / 0.5 g TBPB	5 – 15 minutes
Density	1.2 – 1.3 gcm^{-3}
Appearance	Opaque / Off white liquid
Catalyzed Pot life (25°C)	>48 hours
Catalyzed Pot life (10°C)	>1 month
Shelf life (when stored in original closed container, in the shade)	6 months
Monomer Content	31 – 34 %

TYPICAL PROPERTIES IN CURED STATE

(Fully postcured castings)

PROPERTY	VALUE	TEST DETAILS
Barcol 934 Hardness	40	Barcol 934 Impressor
Tensile Strength (MPa)	60 - 65	DIN 53 455
Elongation at Break (%)	2 - 3	DIN 53 455
Flexural Strength (MPa)	155 - 165	DIN 53 452
Heat Distortion Temperature @ 1.82MPa (°C)	96 -100	DIN 53 461

STORAGE AND HANDLING

To ensure maximum stability and maintain optimum resin handling properties, polyester resins should be stored in closed containers, away from heat sources and sunlight. The resin should be stored away from all sources of ignition. Stored resin quantities should be kept to a reasonable minimum and used on a first in/first out stock rotation basis.

STANDARD PACKAGING

Mild steel drums (open top)
Mild steel pails

Always refer to the MSDS before use