DIFFUSION ENGINEERS LTD



DIFFGLASS VINSTER

TechnicalData: DIFFCOR/CR/06-18

Product Description:

DIFFGLASS VINSTER is vinyl ester resin based Glass Flake Coating designed to meet medium to high corrosive environment. DIFFGLASS VINSTER is excellent resistant to acidic condition.

Application:

Pressure vessels, Brine and Chemical Tank Lining, Acid/Alkali splash & Spillage Mineral processing Industries, municipal waste treatment plants, Oil & gas production facilities

DIFFGLASS VINSTER is Vinster based glass flake coating. Broad resistance corrosion over wide range of PH and **de**mineralised water. Improved elongation for equipment exhibiting frequent temperature change. Higher HDT and solvent resistance than standard resins. Improved toughness. Highly Corrosion resistant Glass Flake, providing better permeation resistance. Temperature range 20 °C to 120 °C.

| Technology | vinyl Glass Flake |
|---|-------------------------------|
| Chemical Type | Vinyl Ester |
| Appearance(Base) | White |
| Appearance(Activator) | colorless |
| Appearance(Mixed) | White |
| Components | Two component-requires mixing |
| Mix Ratio, by volume Resin: Hardener | 98.5 : 1.5 |
| Mix Ratio, by weight Resin: Hardener | 98.5 : 1.5 |
| Cure | Room temperature cure |
| Application | Chemical resistance |

TYPICAL PROPERTIES OF UNCURED MATERIAL

Base:

Viscosity: Sprayble/brushable Weight per liter: 1.5 kg/liter

Hardener:

Viscosity: liquid
Weight per liter: 0.85 kg/liter

Mixed:

Viscosity can be Spray/brush Coverage 0.6 m^2 @ 1mm thick/1kg

TYPICAL CURING PERFORMANCE

Curing Properties

Gel Time @ ambient temp minutes 50 to 60

Curing time vs. Temperature

| Curing time vs. remperature | | | |
|-----------------------------|----------|----------|------------|
| Ambient | 20°C | 25°C | 30°C |
| temp | | | |
| Pot life | 55-60min | 50-55min | 45-50min |
| Full cure | 18hrs | 14-16hrs | 10-12 hrs. |

Typical cured properties of material

| Compressive strength (ASTM D642) | 4500-4800 Psi |
|---------------------------------------|---------------|
| Flexural strength (ASTM 790) | 5500-6000 Psi |
| Hardness shore D (ASTM D2240) | 80-85 |
| Tensile strength (ASTM D882) | 3500-4000 Psi |
| Elongation At break %(ASTM D882) | 1.2 |
| Shear strength (ASTM D1002) | 2000-2200 Psi |
| On grit blasted MS surface | |
| Abrasion resistance (ASTM D4060) | 138 mg |
| H-18 wheels, 1000 cycles | |
| Water vapor permeability(ASTM D1653) | 0.00041 |

Surface preparation: Clean surface to remove oily, rust and any foreign particles. Abrasive blasting with compressed air to achieve surface Preparation of SA 2^{1/2} or Metal surfaces should be grit blasted to a SSPC-SP5 or NACE #1. For Concrete surface should comply with moisture testing as prescribed by ACI Test Method 515, R- 16 "Dryness of Surface". Concrete surface profile of 100 to 120 grit sandpaper.

Application Procedure:

Pour activator into DIFFGLASS VINSTER base container. Mix thoroughly until a proper blend is attained after the saturated basecoat has dried, grind down any burrs that have appeared on the surface. For hand application use trowel / specially designed brush or for spray, 1 to 2 coats of a DIFFGLASS VINSTER, selected according to chemical exposure. Second coat can be applied as soon as first coat is tack free.

