

Epoxy Phenolic 175 Glass Flake

Solvent free, two component Epoxy Phenolic Novolac Flake Glass Coating

Description:

A two-component, solvent free epoxy phenolic novolac (EPN) coating cured with a modified cycloaliphatic amine with a high degree of chemical resistance, particularly mineral acids and solvents. A single EPN polymer contains many epoxide groups, making the molecule multifunctional. When cured to make an epoxy coating, the multi-functionality allows for a high degree of cross-linking, leading to high resistances.

Intended Uses:

Epoxy Phenolic 175 Glass Flake is a high-performance chemical and abrasion resistant lining suitable for brush, roller, or airless spray application.

Based upon a specially selected resin/activator blend, resistant to a wide range of acidic and chemical conditions.

Applications include the lining of concrete or steel tanks, bund walls, culverts, interior of pipes, floors & walls and coating of equipment exposed to chemical splash and fumes

The following is an indication of performance in contact with a range of various chemicals at 20°C. Information on resistance to other chemicals is available from our Technical Service Department.

Epoxy Phenolic 175 Glass Flake on Bare Steel	
Chemical	Suitability
Acetic Acid 20%	4
Ammonium Hydroxide 20%	1
Brake Fluid	1
De-Ionized Water	1
Hydrochloric Acid 20%+	1
Nitric Acid 20%	3
Sodium Hydroxide 20%	1
Sodium Hypochlorite 12% Chlorine	2
Sulphuric Acid 20%	3
KEY (Chemi-Tech USR) 1 = Suitable for continuous immersion (tested up to 3 months @ 20°C) 2 = Short term immersion (< 3 days) 3 = Splashes & spills 4 = Not Recommended	

Features & Benefits:

- Excellent resistance to abrasion & mechanical damage.
- Excellent adhesion on correctly prepared surfaces.
- Excellent erosion resistance, particularly recommended for immersion in aqueous slurries.
- Recommended as a protective lining against a wide range of chemical immersion conditions.
- High resistance to immersion in water up to 120°C

Technical Data:

Product Physical Form	Liquid	
Binder Type	Epoxy phenolic	
Colour	Window grey & white	
Appearance	Semi-gloss	
Comp. A	Name:	Epoxy Phenolic 175 Glass Flake "Colour" Comp.A
Comp. B	Name:	Epoxy Activator SF 300 Comp.B
Mixed	Density (Kg/ Litre):	1.5 ± 0.05
	Volume Solids:	100 %
	Mixing Ratio (Volume):	4 : 1 (Comp. A : Comp. B)
	Pack Size:	5 Litre & 20 Litre
Diluent	Supplied ready for use	
Recommended WFT	350µm per coat (Wet Film Thickness)	
Recommended DFT	350µm per coat (Dry Film Thickness)	
Spreading Rate	2.85 m²/ Litre per coat, allowance should be made for site application losses & surface profile	
Number of Coats	2 coats	
Method of Application	Brush, roller, or airless spray	
Induction Time	5 minutes – restir before use	
Temperature Resistance	Dry continuous: 120 – 150°C Wet continuous: 50 – 65°C (Depending on chemical)	
Pot Life	1.5 – 2 hours @ 25°C	
Storage	Store out of direct sunlight in dry conditions between 15°C and 25 °C	
Shelf Life	12 months when stored as recommended in original un-opened containers	

Drying Information:

@ 350 µm DFT						
	-	0°C	10°C	25°C	30°C	40°C
Touch Dry	-	-	-	6 hrs	-	-
Hard Dry	-	-	-	16 hrs	-	-
Full Cure	-	-	-	7 Days	-	-
Overcoating Data – See Limitations						
Substrate Temp.	5°C	10°C	15°C	25°C	30°C	40°C
Minimum	-	-	-	16 – 24 hrs	-	-
Maximum	N/A – mechanically prepare surface after 48 hours prior to recoating					

- A minimum curing temperature below 10°C is not recommended.
- For optimum chemical resistance, the applied system must be cured at a minimum temperature of 20°C for 7 days.

Surface Preparation:

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be cleaned and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by freshwater rinsing. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

INDUSTRIAL PROTECTIVE COATINGS: ACID & CHEMICAL RESISTANT

Whilst we endeavour to ensure that all advice, we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product

Steel Surfaces

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Epoxy Phenolic 175, the surface should be re-blasted to the specified visual standard. To prevent any oxidation **BlastHold Corrosion Inhibitor** can be used during or post blast cleaning.

Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

A surface profile of 40 - 75 microns is recommended.

Concrete

Always refer to document **"Analysis & Preparation of Substrate"**

Good ventilation of rooms during processing guarantees good curing results.

In general, the following guidelines for preparation should be adhered to

- The areas to be coated should be dry, firm, solid and free from dust, oil, fats, and other contaminants.
- Laitance and loose particles must be removed thoroughly i.e., grinding / abrasive blast cleaning.
- Oils and fats, humidity can be removed by flame treating

Concrete surface should be sealed/primed first with **Epoxy SF Primer Fast Cure**.

Application:

Conditions for application

Do not apply when the relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.

Method of mixing

Stir the contents of Comp. A. Continue stirring and gradually add the total contents of Comp. B. stir for 3 minutes until a homogeneous mix is attained.

Pot Life

Epoxy Phenolic 175 Glass Flake has a usable life of 1.5 – 2 hours @ 25°C. the larger the mix the higher the exotherm and the shorter the pot life. Once mixed the content should be applied swiftly. If applying by roller or brush empty contents onto the surface and spread. If applying by airless spray, ensure material is used well before the usable life to avoid hardening in the machine.

Airless Spray

A minimum 45:1 Pneumatic Airless Pump is required for application. A tip size between 17 to 35 thou is recommended.

Roller or Brush

Thick nap, nylon epoxy rollers or good quality brushes should be used.

Note: The glass Flake tends to "bunch". Special care must be taken to ensure even application

Clean Up

Clean up is done using SA 65 Thinners.

Systems:

Consult with Specialized Coating System for application specific recommendations.

Safety Information:

- Refer to product SDS for health & safety prior to using products.
- Always wear safety clothing / protection. Respirators, eye protection & skin protection.
- Apply in well-ventilated areas