



RSI
INDUSTRIAL
PAINTS Inc.

GLASS FLAKE EPOXY REP-312

PRODUCT DESCRIPTION

REP-312 is a two component amine cured, glass flake reinforced, abrasion resistant epoxy coating. It is a high solids, high build product. It is a high performance product. It is specially designed as an abrasive and impact resistant coating for areas with extreme wear and tear. Can be used as mid coat or finish coat in atmospheric environments. Specially suited for properly prepared carbon steel and concrete substrates. It is self-priming and forms a hard and tough coating which has good resistance against abrasion impact as well as to seawater, crude oil, mineral oils and gasoline tanks. This product has a Norsok M-501 certification (for offshore coating system).

REP-312 has very good adhesion and chemical resistance.

GENERAL PROPERTIES

Adhesion	Excellent on primed and blasted surfaces.
Corrosion Resistance	Excellent Barrier protection.

PHYSICAL PROPERTIES

Colors/Shade No	Limited color range
Finish	Semi-Gloss.
Volume Solid	85±3%
Theoretical spreading rate	1.7 m ² /liter 500 Mic. Dft.
Flash point	30 °C
Specific gravity	1.35±0.05 kg/liter
VOC	90 g/l
Shelf life	1 Years (25°C) from time of production. Depending on storage condition, mechanical stirring may be necessary before usage. Storage environment should be ventilated and away from sunlight and high temperature (above 30 ° C)

MIXING

Mixing ratio (by weight)	Component A: 5	Component B: 1
Pot life	45 min (23 °C)	

APPLICATION

Conditions	The temperature of the substrate should be minimum 10 °C and at least 3 °C above the dew point of the air, measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying. The moisture content in the substrate should not exceed 4 % (by weight). The coating should not be exposed to oil, chemicals or mechanical stress until fully cured	
Method	Airless sprays	Brush, Roller (touch-up): Suitable - Small areas only
Thinner (max. vol.)	RTH-112 (5%)	RTH-112(5%)
Pump ratio minimum	45:1	
Tip size	0.021" – 0.028"	
Tip pressure	3000 Psi	
Cleaning of tools	RTH-112	
Indicated film thickness, dry	300-1000 microns	
Indicated film thickness, wet	350-1180 microns	

DRYING AND CURING TIMES

Condition	Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with: * Good ventilation (Outdoor exposure or free circulation of air) * Typical film thickness * One coat on top of inert substrate
Surface temperature	25°C
Dry to touch	3 hours
Hard dry	6 hours
Full curing	7 days
Recoat interval, min	6 hours
Recoat interval, max	4 days

SURFACE PREPARATION

Condition	To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.
Concrete	Laitance deposits are best removed by Planetary diamond disc grinder or by captive blasting followed by vacuum cleaning to remove dust debris. For old concrete, RSI technical team should visit the site and appropriate surface preparation methodology should be recommended and that is to be followed. All cementitious substrates should be at least 28 days old and have a moisture content not exceeding 5% w.t.
Carbon steel	Abrasive blast clean to SSPC-SP6 or Sa2½ (ISO 8501-1:2007). If oxidation has occurred between blasting and application the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

Substrate	Surface preparation	
	Minimum	Recommended
Concrete and Coated surfaces	Clean, dry and undamaged compatible coating as per SSPC SP13/NACE NO 6 /ASTM D4258 -05 /ACI 503.6R97/SSPC-TR 5/ICRI TECHNICAL GUIDELINE 03741/NACE02203	Clean, dry and undamaged compatible coating as per SSPC SP13/NACE NO 6 /ASTM D4258 -05 /ACI 503.6R97/SSPC-TR 5/ICRI TECHNICAL GUIDELINE 03741/NACE02203
Carbon steel	Sa2½ (ISO 8501-1:2007)	Sa2½ (ISO 8501-1:2007)

REMARKS

Preceding Coat	Zinc ethyl silicate primer such as RHR-102 or RHR-105, Holding primer REP-130. Can apply on prepared surface directly.
Subsequent Coat	None.
Film thickness	May be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate and may influence drying time and recoating intervals. Normal range is 300-1000 microns.
Thinning	The type and amount of thinner depend on application conditions, application method, temperature, ventilation, and substrate. RTH-112 is recommended in general.

- (i) A completely clean surface is mandatory to ensure intercoat adhesion, especially at long recoating intervals. Any dirt, oil, and grease have to be removed, e.g. with suitable detergent.
- (ii) Salts to be removed by fresh water hosing. To check an adequate quality of the surface cleaning a test patch is recommended before actual recoating.
- (iii) *In Off-Shore applications for any cases by more than 3 days recoating interval contact the manufacturer and get the specified technical advices.

SAFETY

Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult RSI material safety data sheets and follow all local and national safety regulations. Harmful or fatal if swallowed; immediately seek medical assistance. Avoid inhalations of possible solvent vapors or paint mist, as well as paint contact with skin and eyes. Apply only on well-ventilated areas and ensure that adequate forced ventilation exists when applying paint in confined spaces or when the air is stagnant. Always take precautions against the risks of fire and explosions.

RSI Co.

Product data sheet REP-312

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