EP-999H HIGH SOLIDS EPOXY COATING
(EP-999HGF HIGH SOLIDS GLASS FLAKE EPOXY COATING)

Type	Two component, aliphatic amine cured epoxy resin with rust converter and anticorrosive pigment.
Uses	Used for ship, bridges, tanks, pipelines, petrochemical plants and steel structures.
Characteristics	˙Low VOC. ˙High-performance general maintenance coating for new or old steel. ˙Cures through wide temperature range. ˙Self-priming topcoat over most indoor coatings. ˙Can be overcoated with wide range of topcoats. ˙Compatible with prepared damp surfaces. ˙Compatible with adherent rust remaining on prepared surfaces ˙5 mils or more in a single coat ˙Resists high humidity and moisture
Color	Gray, Brown
Finish	Semi-gloss
Primer	Self Priming
VOC values	170 g/L, use SP-12 thinner to thin up 5% (220 g/L) or 10% (280 g/L).
Volume Solids	Above 83%
Theoretical Coverage	31.4 m^2/Gal(338 ft^2/Gal) 8.3 m^2/L(89.3 ft^2/L) 5.9 m^2/Kg(63.5 ft^2/Kg) (DFT :4 mils)
Dry Film Thickness	4~10 mils(100~250μm) per coat
Service Temperature	Continuous : 150℃ (302℉) Non-Continuous : 180℃ (356℉)
Preceding Coats	IZ-01 / IZ-01HS Inorganic Zinc Rich Primer, No.1006 Epoxy Zinc Rich Primer , No.1020 Epoxy Alloy Primer No.700 One Pack Polyurethane Maintenance Primer, No.1075 Epoxy Aluminum Tripolyphosphate Primer
Subsequent Coats	Epoxy, Polyurethane(UP-450, UP-04), Fluorocarbon(5400F) resin system
Repair	Self Repairing

YUNG CHI PAINT & VARNISH MFG. CO., LTD.
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Performance Data

Test Method	System	Results
ASTM D5894-96 ASTM D4541-09 Type V Cyclic Corrosive Test	Blasted Steel 1 ct. IZ-01 (75 microns) 1 ct. EP-999H (150 microns) 1 ct. UP-450 (60 microns)	No cracking and peeling in appearance Original adhesive strength : 8.0 MPa Percentage of adhesive strength retention after cyclic corrosive test : 69.6%(5.57 MPa)
ASTM G8-96 B Test for Cathodic Disbonding of Pipeline Coatings (60 days)	Blasted Steel 1 ct. 1027HZ (100 microns) 2 cts. EP-999HGF (130 microns) 1 ct. UP-450F (60 microns)	No blistering, cracking and rusting
ASTM B117-11 Salt Spray	Blasted Steel 1 ct. 1027HZ (100 microns) 2 cts. EP-999HGF (130 microns) 1 ct. UP-450F (60 microns)	No blistering, cracking and rusting after 2000hrs
ASTM F963 Soluble Heavy Metals Test	1 ct. EP-999H	n.d. (Sb、As、Cd、Cr、Pb、Hg、Ba、Se)

Test reports and additional data available upon written request.

Certification

- Norsok M-501-04 : Report number KV-12-08801XA-1 (SGS Taiwan Ltd.)

Application Instruction

- Surface preparation

General Remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Surfaces must be clean and dry. Moisture, grease, sludge, dust, corrosive salt must be thoroughly cleaned from substrate.

Steel Surface preparation standards can use SSPC-SP10 or Sa2 1/2 (ISO 8501-1:2007).

Primed Surfaces EP-999H should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and EP-999H must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of Breakdown and Damage It should be prepared to the specified standard (Sa2 1/2 (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of EP-999H.

- Mixing & Thinning

Mixing Mix base and hardener according to the mixing ratio and stir thoroughly.
Thinning Use Epoxy Thinner (SP-12) to thin up 5-10%.
Mixing Ratio Base : Hardener = 1 : 1 (by weight) 1：1(by volume)
Pot life 4 hours at 25℃ (mixture, 77℉)

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- Equipment

Spray Application	Avoid applying the paint in rainy weather or the relative humidity exceed 85%, particularly, a wet surface must be thoroughly dried. All equipment must be cleaned immediately after use. To increase or decrease the usage of thinner depending on the temperature of the coated surface, the temperature decreased may have to add more amount of thinner
Airless Spray	Pump ratio 33：1 or greater Tip size : 0.021”~ 0.029” Output PSI : 2800~4000.
Brush	Application by brush is applicable. For special condition please consult with product manufacturer.
Roller	Application by roller is applicable. For special condition please consult with product manufacturer.

- Environment conditions

Condition	Coating	Surface	Environment	Humidity
Minimum	10℃ (50℉)	10℃ (50℉)	10℃ (50℉)	30%
Maximum	35℃ (95℉)	55℃ (131℉)	45℃ (113℉)	85%

Industry standards are for substrate temperatures to be 3℃(5℉) above the dew point . the product simply requires the substrate temperature to be above the dew point.

- Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Handle	Dry to Recoat & Topcoat
10℃ (50℉)	12 hours	24 hours
15℃ (59℉)	8 hours	16 hours
25℃ (77℉)	5 hours	8 hours
35℃ (95℉)	2 hours	4 hours

- Cleanup & Safety

Cleanup	Use Epoxy Thinner (SP-12) to clean. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety	Please read and follow all caution statements on this product data sheet and MSDS for this product.
Ventilation	Proper ventilation and protective measures must be provided during application and drying to keep solvent vapor concentrations within safe limits and to protect against toxic or oxygen deficient hazards.

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- Package, Handling & Storage

Shelf Life	Part A :Minimum 2 years under normal storage conditions Part B :Minimum 1 years under normal storage conditions
Shipping Weight	Part A : 1 Gallon — 2.54kg 5 Gallon — 13.5kg Part B : 1 Gallon — 2.54kg 5 Gallon — 13.5kg
Storage Temperature & Humidity	5-35℃ (41-95℉) 0-90% Relative Humidity
Flash Point	Above 25℃
Storage	Store in cool ventilated place, do not exposed to the sun in outdoor to avoid affecting the quality.

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