



# RAINBOW

## RAINBOPRIME 803

High Solid Epoxy Coating

PRODUCT NUMBER  
TYPE  
CHARACTERISTICS

RAINBOPRIME 803

Two component multi-purpose polyamide cured anticorrosive epoxy coating.

1. General purpose epoxy primer/coating in protective coating systems for steel metals.
2. Good adhesion to steel.
3. Cures at temperatures down to 5°C.
4. Good water and corrosion resistance.
5. Good flow and wetting properties.
6. Suitable for touching up of weld seams and damages of epoxy coatings during construction.
7. Suitable on wet blast cleaned substrates (damp or dry).
8. Compliant with U.S. Navy military specification MIL-PRF-23236D TYPE V CLASS 7 GRADE C.  
(Specified by U.S. Navy)

GLOSS  
VOC  
COLORS  
SPECIFIC GRAVITY  
DRYING & CURING TIME  
(Curing table)

Eggshell

Max. 130 g/L

Various other colors

Above 1.3 kg/L

Substrate temp.	5 °C	10 °C	15 °C	20 °C	30 °C	40 °C
Touch dry	18 hrs	12 hrs	8 hrs	6 hrs	5 hrs	3.5 hrs
Dry to handle	30 hrs	20 hrs	12 hrs	8 hrs	7 hrs	6 hrs
Full cure (Ballasting interval)	21 days	14 days	10 days	7 days	6 days	5 days

Above information is for DFT 160µm . Adequate ventilation must be maintained during application and curing.

OPTIMUM FILM THICKNESS  
VOLUME SOLID  
Maximum DFT

Wet 125 ~ 250µ (Micron)      Dry 100 ~ 200µ (Micron)

80 ±2%

DFT of 1500µm may occur, due to multi-layer overlapping, Yung Chi must be consulted in case of DFT fall outside this recommendation

THEORETICAL COVERAGE  
OVERCOATING TABLE  
(EPOXY system for DFT 160µm)

5 m<sup>2</sup>/L for DFT 160µm

Surface should be dry and free from any contamination

Substrate temp.	5 °C	10 °C	20 °C	30 °C	40 °C
Minimum interval	30 hrs	20 hrs	8 hrs	7 hrs	6 hrs
Max interval (exposed to direct sunshine)	30 days	21 days	14 days	10 days	7 days
Max interval (not exposed to direct sunshine)	1.5 months	1 months	21 days	14 days	10 days

MIXING RATIO  
POT LIFE (at application viscosity)

Base : Hardener = 86.3 : 13.7 (by weight)      4 : 1 (by volume)

15 °C	20 °C	30 °C
8 hrs	4 hrs	2 hrs

THINNER  
APPLICATION METHOD &  
THINNER RATE

No.1005 Epoxy Thinner ( SP-12 )

The mixing temperature for the base and hardener should be performed at above 15°C . Or else thinner should be added in order to achieve application viscosity, too much thinner will result in sagging. Well mix the base and hardener before any thinner is added.

	Thinner use	Volume of Thinner	Nozzle Orifice	Nozzle Pressure
Airless Spray	No.1005 Epoxy Thinner ( SP-12 )	0-5%	0.53-0.73mm (0.021-0.029)	150MPa(2130p.s.i)
Air Spray	No.1005 Epoxy Thinner ( SP-12 )	5-10%	1.5-2mm	0.3-0.4MPa(43-57p.s.i)
Brush & Roller	No.1005 Epoxy Thinner ( SP-12 )	0-5%		

EPDM3030803X V1.5

# YUNG CHI PAINT & VARNISH MFG. CO., LTD.

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# RAINBOW

RECOMMENDED SPEC.

SHELF LIFE

NOTE

Please refer the painting specification

Minimum 2 years under normal storage condition.

1. **For immersion exposure:**

- Steel or steel with not approved zinc silicate shop primer; blast cleaned (dry or wet) to ISO-Sa2½, blasting profile 30-75 µm.
- Coated steel; hydrojetted to VIS WJ2 L (blasting profile 30-75 µm).

2. **IMO-MSC.215(82) Requirements for Water Ballast Tanks:**

- Steel; ISO 8501-3:2006 grade P2, with all edges treated to a rounded radius of minimum 2 mm or subject to three pass grinding.
  - Sa 2½ on damaged shop primer and welds. Sa 2 removing at least 70% of intact shop primer, if the Shop primer is not IMO PSPC Type approved to be compatible with this main coating. If the Shop primer is IMO PSPC Type approved to be compatible with this main coating, intact shop primer may be retained. The retained shop primer shall be cleaned by sweep blasting, high-pressure water washing or equivalent method.
  - After erection, butts St 3 or better or Sa 2½ where practicable. Small damages up to 2% of total area: St 3. Contiguous damages over 25 m<sup>2</sup> or over 2% of the total area of the tank, Sa 2½ shall be applied. Coating in overlap shall be feathered. The blasting profile shall be 30-75µm.
  - Dust quantity rating "1 for dust size class "3", "4" or "5", lower dust size classes to be removed if visible on the surface to be coated without magnification (ISO 8502-3:1992).
  - Water soluble salt limit equivalent to NaCl, after blasting / grinding shall be no more than 50 mg/m<sup>2</sup> of sodium chloride.
  - NDFT 320µm in with 90/10 rule. There shall be a minimum of two stripe coats and two spray coats, except that the second stripe coat, by way of welded seams only, may be reduced in scope where it is proven that the NDFT can be met by the coats applied, in order to avoid unnecessary over-thickness.
  - Stripe coats shall be applied by brush or roller. Roller to be used for scallops, ratholes, etc., only.
3. **For atmospheric exposure conditions:**
- Steel; blast cleaned to ISO-Sa2½, blasting profile 30-75 µm.
4. Substrate temperature should be above 5°C and at least 3°C above dew point during application and curing.
5. Maximum relative humidity during application and curing is 85%.

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