



RAINBOW

RAINBOPRIME 805

Solvent-Free Epoxy Coating

PRODUCT NUMBER
TYPE
CHARACTERISTICS

RAINBOPRIME 805

The two pack, anticorrosion primer based on epoxy resin, hardener and special pigment.

1. Used for the new building system or the maintenance system, including water chamber and all areas of ship. Also used for anticorrosion engineering of steel structure such as chemical factories, bridges, power plants, inlet and outlet pipes, drains and sewers etc.
2. Very good adhesion for steel.
3. Excellent water and anti-corrosion resistance.
4. Used for repairing epoxy paint because of cutting or forced damage.
5. Very good recoat ability
6. Can be recoated by epoxy, polyurethane system coatings.
7. Very good compatibility with cathode anticorrosion system
8. No VOC emissions in the coating.

COLORS

Grey, Red oxide

VOC

Max. 0 g/L

SPECIFIC GRAVITY

Above 1.3 Kg/L (mixture)

DRYING & CURING TIME
(Curing table)

| 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 100~ 200µ (Micron) Dry 100 ~ 200µ (Micron)
100%

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

6.25 m²/L for DFT 160µm

Surface should be dry and free from any contamination

(EPOXY system for DFT 160µm)

| 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

Base : Hardener = 89.9 : 10.1 (by weight) 3 : 1 (by volume)

POT LIFE (at application viscosity)

| 15 °C | 20 °C | 30 °C |
|-------|-------|-------|
| 4 hrs | 2 hrs | 1 hrs |

THINNER

No.1005 Epoxy Thinner (SP-12)

APPLICATION METHOD &
THINNER RATE

Airless pump ratio 60:1 or above

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% | | |

EPDM3030805X 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 m² 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/m² 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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