



ISO-9001
ISO-14001



KUKDO
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KSR-176X90

High Performance Epoxy Resin

General Description

EPOKUKDO KSR-176X90 is a High Performance Epoxy Resin, which provides excellent adhesion to a wide range of substrates such as metals and nonferrous metals. It has been developed for strong bonding and coating on substrates that epoxy resin shows poor adhesion. It shows excellent wettability and leveling and high gloss as well. KSR-176X90 dissolved in xylene follows the trends of lightweight using light materials.

Resin Properties

| Item | KSR-176X90 | Test Method |
|-------------------------|------------|-------------|
| EEW (g/eq) | 240-270 | KD-AS-001 |
| Viscosity (cps at 25°C) | 2000-5000 | KD-AS-005 |
| N.V.*1 (wt.%) | 89-91 | KD-AS-018 |
| Color (G) | 5.0 max | KD-AS-025 |

*1 Non-volatile content

Features

1. Excellent adhesion to nonferrous metals
2. Good wettability and leveling on nonferrous metals
3. Good compatibility with polyamide and hydrocarbon resins
4. High gloss type

Adhesion Measurement

| Item | | KSR-176X90 | YD-134X90 |
|-------------|----------|------------|-----------|
| Cross Hatch | Steel | 100 | 100 |
| % Retained | Aluminum | 100 | 35 |

Test Method : ASTM D 3359B

Mixing ration : KSR-176X90(YD-134X90)/G-640=39phr

Curing agent : Kukdo Domide G-640

Curing condition : 7days at room temperature

Film thickness: 20 μ m

Erichsen Test

| Item | G-5022X70 | GX-450XB70 | Phenalkamine |
|------------|-----------|------------|--------------|
| KSR-176X90 | < 6.1mm | < 5.5mm | < 5.7mm |
| YD-134X90 | < 5.7mm | < 4.7mm | < 4.5mm |

Test Method : ISO 1520

Dupont Test

| Item | G-5022X70 | GX-450XB70 | Phenalkamine |
|------------|--|--|--|
| KSR-176X90 | D \leq 1000g/50cm R \leq 1000g/50cm | \leq 1000g/50cm \leq 1000g/50cm | \leq 1000g/50cm \leq 1000g/50cm |
| YD-134X90 | D \leq 1000g/40cm R \leq 1000g/40cm | \leq 1000g/20cm \leq 1000g/10cm | \leq 1000g/10cm Fail |

Test Method : ASTM D 2794

D : Direct, R : Reverse

Substrate : Aluminum

Mixing ratio : Epoxy Resin/Kukdo Domide G-5022X70 =100/90

Epoxy Resin/Kukdo Domide GX-450XB70=100/118.8

Epoxy Resin/Phenalkamine(NC-541)=100/64.8

Curing condition: 24hr at room temperature+80°C for 1hr

Applicable Substrates

- Aluminum
- Titanium
- Stainless steel
- Copper
- Steel
- Magnesium
- Bronze
- Nickel
- Nickel Chrome plating
- Ferrous and nonferrous alloy etc.

Storage

Keep dry and cool condition

Keep away from excessive heat and humidity

Packaging

Close can of 20kg net weight

Close drum of 200kg net weight