

SANHO CHEMICAL CO., LT 1 CHUNG SHAN S. RD., LU-CHU, KAOSHIUNG, TEL: 886-7-6962211~3 FAX : 886-7-6976993 (Sales) FAX: 886-7-6961782 (Export)

http://www.sanho.com.tw E-mail: sanho@sanho.com.tw E-mail: sanho@so-net.net.tw

KINGMIDE 310

KINGMIDE 310 is a high molecular weight with high viscosity, reactive polyamide resin designed for use with liquid epoxy resins. KINGMIDE 310 are suitable for use in adhesives and coatings, where excellent adhesion, high toughness, good chemical resistance are required. Compare with KINGMIDE 305, KINGMIDE 310 get lower viscosity, shorter pot life, faster thin film set time. KINGMIDE 310 may be used for plasticizer.

1. SPECIFICATIONS

| : Brown-colored viscous liquid. |
|---------------------------------|
| : 30,000~50,000 mPa·s |
| : 10 Max. |
| : 250 ±15 |
| : 170 |
| : 0.97 |
| |

2. RECOMMENTED MIXING RATIO

- ∋ 80~120 parts by weight to 100 parts of Bisphenol-A type epoxy resin whose epoxy equivalent weight is about 190.
- \Rightarrow 30~60 parts by weight to 100 parts of Bisphenol-A type epoxy resin whose epoxy equivalent weight is about 490.

3. CURING CHARACTERISTICS

: Employed Bisphenol-A type epoxy resin whose epoxy equivalent Epoxy resin weight is about 190.

: 100 gram Total mass

Room temp. : 23℃

| EXOTHERMIC REACTION | | | | | |
|--------------------------------|-------|--|--|--|--|
| Mixing ratio = Epoxy resin / K | 310 | | | | |
| Peak exothermic temp. | (°C) | | | | |
| Gel time (1 | min.) | | | | |



4. PHYSICAL PROPERTIES

Employed Bisphenol-A type epoxy resin whose epoxy equivalent weight is about 190. Curing time=7 days at 23° C

| Epoxy resin / KINC | MIDE 315 | | |
|-----------------------|------------------------|--|--|
| Tensile Strength | (kgf/mm ²) | | |
| Flexural Strength | (kgf/mm^2) | | |
| Flexural Modulus | (kgf/mm^2) | | |
| Compressive Strength | (kgf/mm^2) | | |
| Izod Impact Strength | (kgf/cm-cm) | | |
| Rockwell Hardness | (M-scale) | | |
| Heat Distortion Temp. | (°C) | | |

5. LAP SHEAR STRENGT

Mild steel plates with sand blast treatment were employed whereon the lap shear strength of the mixtured resin of the epoxy resin and KINGMIDE 310 was measured.

Epoxy resin: Employed same epoxy resin as above 4.Curing time: 7 days at 23° C

| Epoxy resin / KINGMIDE 310 | | | |
|---|--|--|--|
| Lap shear strength (kgf/cm ²) | | | |

6. CHEMICAL RESISTANCE

Weight change of the cured products of an epoxy resin (=employed the same epoxy resin as **4.**) with KINGMIDE 315 was measured as follow after immers them for a specified period into following chemical substances.

Curing time : 7 days at 23° C

| | | | | Unit | : % |
|------------------------------|--|--|--|------|-----|
| 70 / 30 | | | | | |
| 1 | | | | | |
| Tap water | | | | | |
| 5%salt solution | | | | | |
| 10% caustic Soda Solution | | | | | |
| 10% ammonia Solution | | | | | |
| 5% sulfuric Acid Solution | | | | | |
| 5%hydrochloric Acid Solution | | | | | |
| Kerosene | | | | | |
| Isopropanol | | | | | |
| Methyl-isobutyl-ketone | | | | | |