TEL: 886-7-6962211~3 http://www.sanho.com.tw FAX: 886-7-6976993 (Sales) E-mail: sanho@sanho.com.tw FAX: 886-7-6961782 (Export) E-mail: sanho@so-net.net.tw

TOHMIDE 2500

 $TOHMIDE\ 2500\ is\ a\ low\ viscosity\ ,\ reactive\ polyamide\ hardner. This\ product\ is\ designed$ for use with liquid epoxy resins to get long pot life with room temperature cure.

TOHMIDE 2500 is useful in civil engineerings, linings...and adhesives with heat curing.

1. SALES SPECIFICATION

Appearance : Brown-colored viscous liquid.

Viscosity (mPa·s 40° C) : $500 \sim 1,000 \text{ mPa·s}$

Colour (Gardner) : 12 Max. Amine Value (JIS) : 390 ± 15 A.H.E.W. : 125 Specific Gravity (25 / 25°C) : 0.95

2. RECOMMENTED MIXING RATIO

50 ~ 80 parts to 100 parts of Bisphenol-A type epoxy resin whose epoxy equivalent weight is about 190.

3. CURING CHARACTERISTICS

Epoxy resin : Employed Bisphenol-A type epoxy resin whose epoxy equivalent

weight is about 190.

Total mass : 100 gram Room temp. : 23° C

| Epoxy / TOHMIDE 250 | 100 / 67 | | |
|-----------------------------|--------------------------|-------|--|
| Peak Exothermic Time | (min.) | 160 | |
| Peak Exothermic Temperature | $(^{\circ}\!\mathbb{C})$ | 45 | |
| Gell Time | (min.) | < 190 | |

4. MECHANICAL/PHYSICAL PROPERTIES

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

| Epoxy resin / TOHMIDE 2500 | | 100 / 43 | 100 / 67 | 100 / 100 | |
|-----------------------------|------------------------|-------------------|-------------------|---------------------|--|
| Tensile Strength | (kgf/mm ²) | 2.7 | 5.3 | 3.3 | |
| Flexural Strength | (kgf/mm^2) | 1.9 | 6.2 | 3.4 | |
| Flexural Modulus | (kgf/mm^2) | 0.6×10^2 | 0.2×10^2 | 0.1×10^{2} | |
| Compressive Strength | (kgf/mm^2) | 2.9 | 5.8 | 3.6 | |
| Izod Impact Strength | (kgf-cm/cm) | 1.6 | 1.9 | 3.1 | |
| Rockwell Hardness | (R Scale) | 58 | 115 | 92 | |
| Heat Distrotion Temperature | $(^{\circ}\mathbb{C})$ | 23 | 43 | 35 | |

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5. LAP SHEAR STRENGH

The resin mix of TOHMIDE 2500 and the same epoxy resin as employed above was applied to hold mild steel plates at 22~23°C, whose surface were treated by sand-blast. LAP SHEAR STRENGTH was measured as follow after leaving the bonded steel plates at $22\sim23^{\circ}$ C for 7 days.

| Epoxy / TOHMIDE 2500 | 100 / 43 | 100 / 67 | 100 / 100 |
|--|----------|----------|-----------|
| Lap Shear Strength (kgf/cm ²) | 183 | 153 | 173 |

6. CHEMICAL RESISTANCE OF THE CURED PRODUCTS

Percentage increase in weight of the cured products of TOHMIDE 2500 and the same epoxy resin as employed above were measured as follow after curing them at an ambient temperature, and immersing into following chemical substances.

| Immersing time (days) | 1 day | | 7 day | | 30 day | | | | |
|----------------------------------|-------|-----|-------|-----|--------|------|-----|-----|-----|
| Epoxy / TOHMIDE 2500 | 48 | 67 | 100 | 48 | 67 | 100 | 48 | 67 | 100 |
| Tap Water | 0.3 | 0.3 | 0.5 | 0.8 | 0.9 | 1.4 | 1.5 | 1.7 | 2.9 |
| 5% solution of Salt | 0.3 | 0.4 | 0.5 | 0.7 | 1.0 | 1.3 | 1.5 | 1.7 | 2.6 |
| 10% solution of Caustin soda | 0.3 | 0.5 | 0.5 | 0.6 | 0.8 | 1.1 | 1.3 | 1.4 | 2.2 |
| 10% solution of Ammonia | 0.3 | 0.3 | 0.4 | 0.7 | 0.8 | 1.2 | 1.5 | 1.6 | 2.5 |
| 5% solution of Surfruic Acid | 0.4 | 1.4 | 5.0 | 1.0 | 2.8 | 15 | 1.9 | 4.7 | 32 |
| 5% solution of Hydrochioric Acid | 0.3 | 0.8 | 2.8 | 0.8 | 1.7 | 8.0 | 1.5 | 3.0 | 18 |
| Kerosene | 0.2 | 0.3 | 1.0 | 0.6 | 0.8 | 3.0 | 0.9 | 1.4 | 6.1 |
| Isopropylalcohol | 1.7 | 2.1 | 4.4 | 3.4 | 4.5 | 12.6 | 4.6 | 7.4 | |
| Metyl isobutyl ketone | 17 | 7.2 | 4.6 | | | | | | |