## Vinyl Ester Resins

Showa Highpolymer Co., Ltd



## **Description**

- Outstanding corrosion resistance to acids and alkalis
- Outstanding mechanical properties, especially resiliency and elongation
- Excellent bonding strength
- Low viscosity
- Excellent photo curing and electron beam curing characteristics

**RIPOXY** is a thermosetting resin generally called vinyl ester resin, or epoxy-acrylate resin. Cured **RIPOXY** resin has excellent physical properties comparable to those of epoxy resin, but unlike epoxy resins, is as easy to cure as unsaturated polyester resins. **RIPOXY** is usually dissolved in styrene monomer or (meth) acrylate monomer.

## **Specifications**

| Refs            | Color<br>(Gardner)  | Specific gravity<br>(25 °C) | Viscosity poise at 25°C | Gel time<br>(min) |  |  |
|-----------------|---------------------|-----------------------------|-------------------------|-------------------|--|--|
| <b>R-802 EX</b> | <b>R-802 EX</b> < 5 |                             | 4 to 6                  | 22 to 30          |  |  |
| R-806 EX        | < 8                 | 1.0 to 1.1                  | 0.9 to 2.3              | 22 to 30          |  |  |
| H-630 EX        | <b>H-630 EX</b> <10 |                             | 1.8 to 2.2              | 22 to 32          |  |  |

Estimated values measured under ambient temperature, with MEKPO(55%) / Promoter-EX(mixture of 60% 6% Cobalt Naphthenate and 40% Dimethylaniline) = **1.5/0.5** added to 100 parts of resin at 25 °C.

## **General Properties of cures cast resins**

|              | Specific       | Heat       | Tensile  | Flexural | Flexural | Compress. | Charpy | Barcol   | Flong | Curing              |
|--------------|----------------|------------|----------|----------|----------|-----------|--------|----------|-------|---------------------|
| Refs         | gravity        | distorsion | strength | strength | modulus  | strength  | impact | hardness | (%)   | Curing<br>shrinkage |
|              | (25 °C)        | Temp (°C)  | (MPa)    | (MPa)    | (GPa)    | (MPa)     | (J/m2) | maraness |       | (%)                 |
| <b>R-802</b> | 1.134          | 100        | 69-89    | 120-150  | 2.7-3.1  | 108-118   | 4900-  | 35       | 6     | 7.5-8.5             |
| EX           |                |            |          |          |          |           | 7900   |          |       |                     |
| <b>R-806</b> | 1.130          | 110        | 69-89    | 120-150  | 2.9-3.3  | 108-118   | 4900-  | 40       | 3.2   | 7.5-8.5             |
| EX           |                |            |          |          |          |           | 7900   |          |       |                     |
| H-630        | <b>0</b> 1.127 | 137        | 69-79    | 130-140  | 3.4-4.0  | 127-148   | 1900-  | 42       | 2.5   | 7.5-8.5             |
| EX           |                |            |          |          |          |           | 4000   |          |       |                     |

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