



# SHS

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SHOWA HIGHPOLYMER SINGAPORE PTE.LTD

2 Shenton Way #15-03/04 SGX Centre 1 Singapore 068804

Tel:(65)6223 1889 , Fax:(65)6223 6007

## SH 7000

### 1.General Description

**SH 7000** is Vinyl Ester Resin , and suitable for making quick curing type for filament winding , hand lay-up and spray up moulding. And also this resin have the good property for anti-corrosion , chemical resistance tank ,pipe and fitting...etc. Especially recommended for Chemical Engineering , due to excellent performance on strength properties. But this resin is not suitable for clear transparent casting purpose is not recommended.

#### A) Properties of liquid SH 7000

| TEST ITEMS                 | TEST METHOD     |                  |
|----------------------------|-----------------|------------------|
| Appearance                 | JIS K 6901      | Viscosity Liquid |
| Viscosity(Ps/30°C)         | JIS K 6901      | 4 - 5            |
| Specific Gravity(30°C)     | JIS K 6901      | 1.048            |
| Gel Time(minute/30°C)      | JIS K 6901      | 20 - 35          |
| Monomer Content(%)         | ISO 3252 - 1974 | 45 ± 2           |
| Mineral Content(%)         | DIN 1645 - 1976 | Max. 0.05        |
| Linear Curing Shrinkage(%) | ASTM D 2566-69  | 1.9 ~ 2.1        |

#### B) Properties of cured SH 7000

| PROPERTY                     | TEST METHOD   |                        |
|------------------------------|---------------|------------------------|
| Density                      | ASTM C905-01  | 1.033g/cm <sup>3</sup> |
| Barcol Hardness              | ASTM D2583-07 | 39BHC                  |
| Heat Distortion Temperature  | ASTM D648     | 103 degree C           |
| Glass Transition Temperature | ASTM E1356-03 | 106 degree C           |
| Water Absorption             | ISO/R 62-1980 | Max. 80mg              |
| Elongation                   | ASTM D638     | 5-6 %                  |
| Tensile Strength             | ASTM D638     | 75 Mpa                 |
| Tensile Modulus              | ASTM D638     | 3.49 Gpa               |
| Flexural Strength            | ASTM D790     | 135 Mpa                |
| Flexural Modulus             | ASTM D790     | 3.09 Gpa               |

## 2. Curing table

| Temperature (°C) | Curing agent (% v/w) | Gel time (min) | Curing time(min) |
|------------------|----------------------|----------------|------------------|
| 25               | 2.0                  | 15-20          | 30-45            |
| 30               | 1.5                  | 15-20          | 30-45            |
| 35               | 1.5                  | 15-20          | 30-45            |

\*Curing agent : Akperox A-50

\*Usage instruction:

a) add in the curing agent , stir and mix well

\*Remarks

a) Pot gel time as stated above is a guideline, it is not a guarantee. Before use, please check the pot gel time.

## 3. Packing

\*200kg/drum

\*Packed in the steel drum of standard size

## 4. Shelf life

After production, will expire 4 months later.

Remark:

The temperature of your warehouse must keep less than 25°C

## 5. Safekeeping

\*Set SH7000 away from ignition sources (flame, fire, sparks, any)

\*No smoking in the warehouse and also storage area

\*keep SH7000 out of the sun

\*SH7000 must separate from hardener and oxidizing materials, promoter regarding storage area

\*Care high humidity in the warehouse

\*Due to keep the quality and same properties of SH7000, it must be stocked less than 25°C in your warehouse

\*Due to keep the temperature and also air circulation in your whole warehouse, please install a ventilator and a fan inside of top roof

\*Please keep and follow our safety data sheet

Note:

\*All data is just technical data and also don't be guaranteed curing resin and laminated product by SH7000

\*if necessary to be any other information, please contact our PIC of your own country