

# SHANGHAI SHOWA HIGHPOLYMER CO., LTD.

Technical Department: No. 8333 Songze Ave., Qingpu Industrial Zone, Shanghai, CHINA

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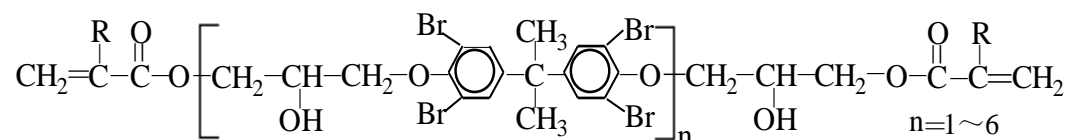
TEL: 021-62175222 FAX: 021-62179842

## RIPOXY<sup>®</sup> S-520EX

### 1. Characteristic

RIPOXY<sup>®</sup> S-520EX vinyl ester resin is brominated bisphenol-A epoxy resin that offers a high degree of fire retardance. S-520EX resin provides resistance to a wide range of acids, alkalis, bleaches, and organic compounds for use in many chemical processing industry applications.

Molecular structural foemula:



### 2. Typical Liquid Specialty Resin Properties

Property	Unit	Range
Acid value	KOH mg/g	7.0~11.0
Viscosity (25°C)	dPa•s	3.0~5.0

### 3. Properties of Postcured Resin Casting

Property	Unit	Range
Tensile Strength	MPa	70~85
Tensile Elongation at break	%	4.0~6.0
Flexural Strength	MPa	135~150
Flexural Modulus	GPa	3.0~3.5
Heat Distortion Temperature	°C	110~115
Barcol Hardness		40
O.I.		28

Cure schedule: 24 hours at room temperature, 2 hours at 120°C.

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## **4. Properties of Postcured 3mm reinforced laminate**

Property	Unit	Range
Tensile Strength	MPa	96
Flexural Strength	MPa	147
Flexural Modulus	GPa	7.8
Barcol Hardness		50
Typical Flame Retardancy (ASTM E84)		
Flame Spread Index (FSI)		Class B

(1) 3mm reinforced laminate: S/M/M/M/S, S= glass surface mat, 30g/m<sup>2</sup>; M=chopped strand mat, 450g/m<sup>2</sup>

(2) Cure schedule: 24 hours at room temperature, 2 hours at 120°C。

## **5. Applications and FRP Molding Methods**

With an excellent corrosion resistance property, S-520EX has been applied in abundant cases as corrosion resistance FRP for pipes, towers and vessels. It is also used for reins lining of steel tanks, concrete vessels and concrete floors that are exposed to corrosive environment.

FRP molding methods: Hand lay-up, Pultrusion, Filament winding, Vacuum infusion molding.

## **6. Storage**

Store at temperatures below 27 °C. Storage life decreases with increasing storage temperature. Avoid exposure to heat sources such as direct sunlight or steam pipes. To avoid contamination of product with water, do not store outdoors.