TECHNICAL DATA SHEET

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Bis Phenol A type Epoxy Vinyl ester resin

Ripoxy™ R-802EX

Ripoxy™ R-802EX is a vinyl ester resin that offer unique performance and a wide range of versatility

Characteristics

・Excellent Chemical Resistance, especially against Acids, Alkalis and solvents
・High mechanical strength for FRP
・Excellent fatigue strength and excellent toughness

Advantages

・Lower viscosity ：can use smoothly
・Longer shelf life

Applications

・Chemical tanks, pipes, scrubbers, ducts
・Floor lining, Waterproof lining,
・Waste treatment systems lining
・Marine (yachts and boats)
・High strength FRP

1. Properties of liquid resin

Property	Unit	R-802EX	Test method
Appearance	-	Clear yellow	-
Viscosity	dPa・s/ 25℃	4.0 - 6.0	ASTM D445
Gel time	Min	22.0 - 32.0	
Shelf life	Months/25℃	6	

*Gel time : 25 ℃C55%MEKPO 1.5phr Promoter EX 0.5phr
*Promoter EX : Cobalt naphthenate (metal 6%) / Dimethyl aniline =60phr/40phr

2.Propeties of cured resin

Property	Unit	Cast	Laminate	Test method
Flexural strength	MPa	130	130	ASTM D790
Flexural modulus	GPa	2.8	6.1	ASTM D790
Tensile strength	MPa	80	93	ASTM D638
Tensile elongation	%	6.0	-	ASTM D638
Heat distortion temperature	deg.C	100	-	ASTM D648
Barcol Hardness	-	35	49	ASTM D2583
Curing shrinkage	%	7.8	-	ASTM D2566

*Laminated constitution: 3mats(450g/m^2),glass contents 30%

3.Curing properties(Gel time)

Temperature (℃)	MEKPO (phr)	NpCo 6% (phr)	Pot gel (min)
15			
20			
25	2.0	0.5	40～50
	2.5	0.5	25～35
30	1.5	0.5	35～45
	2.0	0.5	20～30
	2.5	0.5	15～25
35	1.2	0.5	35～45
	1.5	0.5	20～30
	2.0	0.5	10～20
40	1.0	0.5	40～50
	1.2	0.5	15～25

*MEKPO：Methyl ethyl ketone peroxide

*NpCo6%：Cobalt naphthenate (metal 6%)

*DMA ：Dimethyl aniline

Precautions for Handing

1. Industrial safety and health precautions
   ・Styrene contained , if in haled , it could cause organic solvent poisoning and other health damages.
   ・When using Ripoxy™, secure proper ventilation and wear anti-organic gas mask or air-supplied respirator and proper protective clothes to prevent contact with the body.

2. Storage and handling precautions
   ・Ripoxy™ is a flammable liquid in Class 3 under the United Nation Law
   ・Handling should be made away from heat or fire , and storage must conform

3. Precautions in use
   ・When using curing agent and promoter , first stir the promoter well and then add the curing agent
   (Simultaneous addition must be made because it would cause explosive decomposition)

4. First aid
   ・When Ripoxy™ gets into the eyes , wash away with abundant water for at least 15 minutes , and see the doctor if there is pain or change in appearance.

5. Disposal precautions
   ・Dispose after the content is completely used up.
   ・Any surplus resin containing curing agent and/or promoter must be cured in a water bath.
   (If disposed before curing, the curing exothermicity could trigger spontaneous combustion.)

6. Other precautions
   ・For detailed information on the safe handling of Ripoxy™, please make sure to read before use the separately prepared ‘Safety Data Sheet’.