

Product Description

EzCiclo GR2501-A/BS is a two component recyclable epoxy- anhydride filament winding resin system for making glass fiber and carbon fiber reinforced composite. This recyclable epoxy- anhydride filament winding resin provide low mixed viscosity, long pot life and efficient strength building ability. Good wetting ability toward to glass fiber and carbon fiber and could perform good mechanical properties and good toughness. Composite material made by EzCiclo GR2501-A/BS could be degraded by CleaVER with suggested process.

Physical properties

Properties	unit	EzCiclo GR2501-A	EzCiclo GR2501-BS
Appearance	N/A	opaque white liquid	transparent brown liquid
25°C Density	g/cm ³	1.0-1.2	1.0-1.2
25°C Viscosity	mPa.s	4000-8000	30-150
Weight mixing ratio	phr	100:90	
25°C Mixed Viscosity	mPa.s	200-500	
Shelf life ⁽¹⁾	months	12	12

Mechanical properties

Suggested curing condition: 60°C/1hr+80°C/2hr+135°C/2hr

Properties	Method	EzCiclo GR2501-A/BS
Appearance	Visual	Light brown
Tensile strength(MPa)	ISO527-2	70-90
Tensile modulus (MPa)	ISO527-2	2700-3300
Tensile fracture elongation (%)	ISO527-2	>4.5
Flexural strength(MPa)	ISO178	115-135
Flexural modulus (MPa)	ISO178	2700-3300
Flexural fracture elongation (%)	ISO178	>5
Midpoint-TG (DSC test)(°C)	ISO 11357-1	>135
Onset Tg(DMA test)(°C)	ASTMD7028	>135

DSC tg scan profile: 20°C-250°C at 10°C/min

DMA tg test parameter: frequency:1HZ/Amplitude:5 um/ 20°C-200°C at 3°C/min

The data presented herein are believed to be accurate and reliable. We require customers to inspect and test our product before use and to satisfy themselves as to contents and suitability for their specific applications. Information herein is to assist customers in determining whether our products are suitable for their applications but not to be taken as a guarantee, express warranty or implied warranty of merchantability or fitness for particular purpose, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our material and in no event shall we be liable for special, incidental or consequential damages.

Resin Storage

1. The epoxy resin should retain its chemical properties for at least 12 months as stored in a dry environment away from direct sunlight at a temperature not over 25 °C.
2. The hardener should retain its chemical properties for at least 12 months as stored in a dry environment, away from direct sunlight and at a temperature not over 25°C. If possible, provide nitrogen padding in the headspace of opened containers and bulk storage facilities.
3. Hardeners are hygroscopic and will absorb moisture and carbon dioxide from the atmosphere if not stored properly. Be sure to close containers immediately after use. The absorption of moisture and/or carbon dioxide affect the chemical behavior of the material and the performance properties of the final product.

Package

1. SWANCOR EzCiclo GR2501-A packed in 5 gallon barrel, weight 20 kg per barrel
2. SWANCOR EzCiclo GR2501-BS packed in 5 gallon barrel, weight 20 kg per barrel

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