

9821A/B HIGH TOUGHNESS AND MEDIUM TEMPERATURE RESISTANT EPOXY RESIN SYSTEM FOR WINDING MOLDING TECHNICAL DATA SHEET

Description

9821A resin is modified 0164 epoxy resin, and 9821B curing agent is modified liquid acid anhydride.

This product has moderate mixing viscosity, long pot life, and good wettability to carbon fiber and glass fiber.

The cured product has excellent mechanical properties and heat resistance, high toughness, and crack resistance.

It is suitable to produce high-toughness and medium-temperature-resistant composite material products formed by winding, such as high-pressure gas cylinders.

Typical Performance		Indicator Range	Unit	Reference Standards
Conventional Physical and Chemical Indicators				
9821A	Appearance	Off-white to yellow viscous liquid	/	/
	Epoxy Equivalent	180-200	g/mol	GB/T 4612
	Viscosity, 25° C	3000-6000	mPa.s	GB/T 22314-2008
9821B	Appearance	Light yellow or yellowish-brown transparent liquid	/	/
	Viscosity, 25° C	20-100	mPa.s	GB/T 22314-2008
Mixing Properties Parameters				
Mixing Ratio (mass ratio)		9821A:9821B=100:90		
Mixed Viscosity, 25° C		400-600	mPa.s	GB/T 22314-2008
Operating Time, 100g/25° C		≥8	h	/
Gel Time, 2g/150° C		110-150	s	/
Casting Properties				
Tensile Strength		≥ 80	MPa	GB/T 2567-

			2008
Percentage of Breaking Elongation	≥ 5.0	%	GB/T 2567-2008
Tensile Modulus	≥ 2.8	GPa	GB/T 2567-2008
Bending Strength	≥ 120	MPa	GB/T 2567-2008
Compressive Strength	≥ 100	MPa	GB/T 2567-2008
Glass Transition Temperature (T _g)	≥ 115	° C	GB/T 19466.2-2004

Note

1.Recommended curing conditions are 90° C/2h+120° C/2h+140° C/2h or 90° C/2h+130° C/4h.

2.The curing system is used as a reference and can be adjusted according to the actual heating equipment and efficiency. The cooling process needs to be slow.

Precautions

9821A epoxy resin is packaged in iron barrels, and 9821B curing agent is packaged in plastic barrels, or supplied in other agreed forms.

Both epoxy resin and curing agent need to be stored in a ventilated, dry, and cool place, away from high-temperature fire sources, and away from sunlight. The shelf life of the resin is 2 years, and the shelf life of the curing agent is 1 year.

If the resin and curing agent are not used up, they should be sealed and stored immediately to avoid moisture absorption and deterioration.

The resin and curing agent need to be fully mixed and evenly mixed, and the curing process should be carried out in strict accordance with the process to ensure the final quality of the product.

Resin and curing agent are non-dangerous goods and can be disposed of as normal items.

This product is strictly prohibited to be swallowed, and labor protection equipment must be worn during operation. If it contaminates the skin, rinse it immediately with warm water and soap or clean it with organic solvents such as ethanol and acetone.

When processing, using, and disposing of this product, the relevant safety and health laws and regulations of the country and region should be observed.

Disclaimer

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