

Product Description

EzCiclo GR5301 is epoxy resin designed for recyclable prepreg. The formulation is free of Diuron and volatile components, ensuring both environmental friendliness and safety. This product is primarily made from recycled modified resins, offering excellent impregnation properties and mechanical strength. It is suitable for the preparation of carbon fiber and glass fiber prepreps. EzCiclo GR5301 can be applied to a wide range of sports equipment, such as bicycles, rackets, fishing rods, and bats, as well as in various industrial fields, including automotive, aerospace, shipbuilding, 3C electronics, and construction reinforcement. The product can also be used in conjunction with our CleaVER degradation technology for recycling, enabling the reuse of composite materials.

Typical properties of Neat resin

Item	EzCiclo GR5301
Appearance	Beige paste
Viscosity(cps,@70°C)	15000-25000 cps
Tg ^{*1}	120-130 °C
Enthalpy ^{*2}	300-500 J/g
Curing Time ^{*3}	150°C : 30 mins
Recycled Content (%)	5-10
Biobased Content (%)	20-25

*1 Tg is tested by DSC after cured.

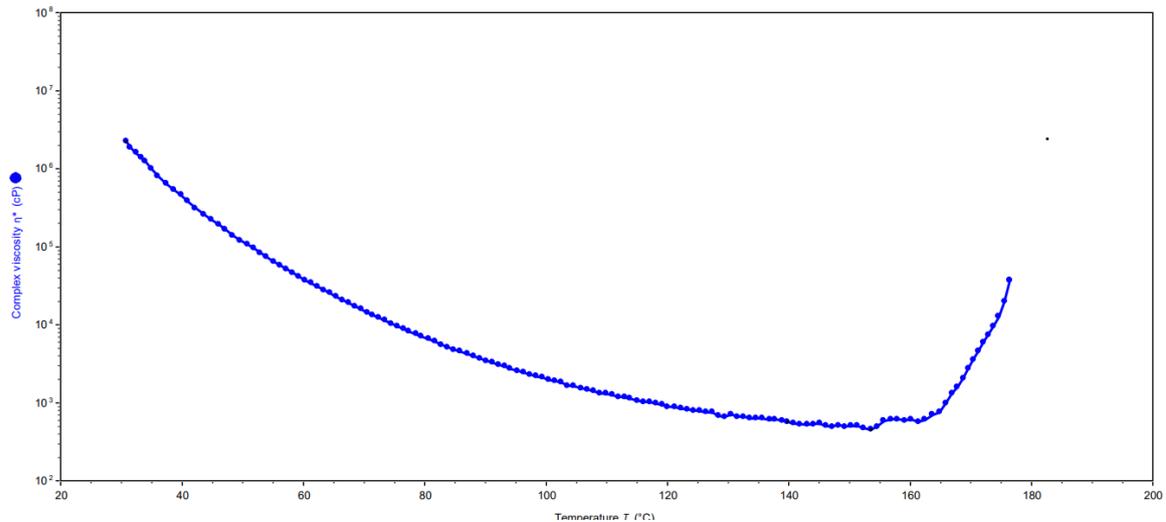
*2 Test method: According to ISO11357-5. The ramp is 10 °C/min.

*3 The recommended curing cycle is base on laboratory testing. The curing cycle can be adjusted according to the process, product sizes and thickness.

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.

Rheology of epoxy resin(Ramp temperature : 10°C/min)

EzCiclo GR5301	
Minimum viscosity (cps)	454.51
Temperature(°C)	153.47



Coating and impregnation conditions

1. The preheating temperature of the resin is less than 75°C, and the preheating time is less than 1 hour.
2. The coating temperature is 65-75°C, which can be adjusted according to the operating conditions.
3. The temperature of the impregnation is at 85-100 °C, which can be adjusted according to the operating conditions.

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Compression moulding conditions

1. The curing process depends on the customer's heating conditions, product shape, and mould thermal conductivity.
2. The Resin could be cured under 150 °C x 30 mins.

Storage Life

Shelf Life*4:	21 days at 23°C / 3 months at 0°C / 6 months at -18°C (from date of manufacture)
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*4Shelf Life: The maximum storage, when stored continuously, in a closed moisture-proof bag, at 25°C. To accurately establish the exact expiry date, consult the box label.

Package

Resin:	4KG in PE bag and 20KG in box
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Safety & Handling

1. Please refer to the SDS for the most current safety and handling information.
2. Resin should be stored in a dry place in their original properly sealed containers, and at the recommended temperature, Shelf life and out-life are indicated on the labels.
3. It is recommended to heat only the required amount before use, as repeated heating may affect the material's properties.
4. During handling, wear clean, impervious gloves to avoid skin contact and prevent contamination of the material.

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