

2573 PREPREG SYSTEM

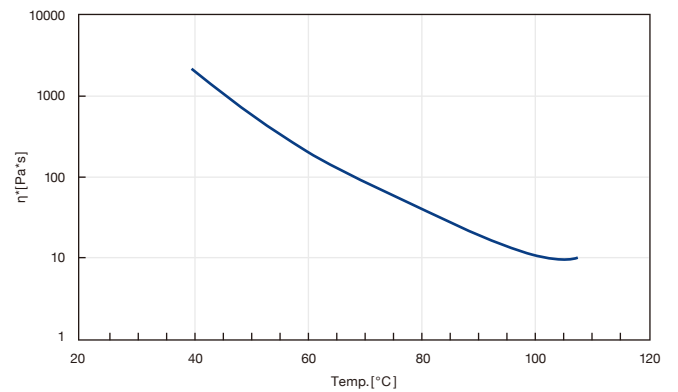
2573 prepregs are highly toughened 120 to 135°C cure systems. Nano-technologies are applied to 2573 prepregs to increase toughness and compressive strength, so the system is called NANOAL-LOY®. They are available in a variety of configurations, including unidirectional sheets and fabrics.



NEAT RESIN PHYSICAL PROPERTIES

PROPERTY	METHOD	VALUE
Tg (Dry)	DMA@5°C/min Cure condition:130°C×120min	133

RESIN VISCOSITY CURVE



TYPICAL LAMINATE PROPERTIES

PROPERTY	METHOD	UNIT	VALUE
Prepreg Type			P 220_S
CF Type			T800S
0° Tensile Strength*	Toray method (compliant with ASTM)	MPa	3530
0° Tensile Modulus*	Toray method (compliant with ASTM)	GPa	166
90° Tensile Strength	Toray method (compliant with ASTM)	MPa	80
0° Compressive Strength*	Toray method (compliant with SACMA (SRM1R))	MPa	1490
0° Flexural Strength*	Toray method (compliant with ASTM)	MPa	1690
0° Flexural Modulus*	Toray method (compliant with ASTM)	GPa	148
Inter-laminar Shear Strength	Toray method (compliant with ASTM)	MPa	87
±45° In Plane Shear Strength	Toray method (compliant with ASTM)	MPa	128
±45° In Plane Shear Modulus	Toray method (compliant with ASTM)	GPa	4.7

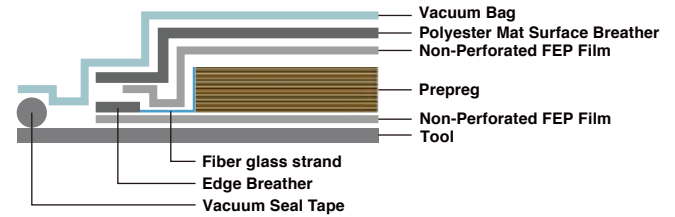
* Vf60%

STORAGE LIFE

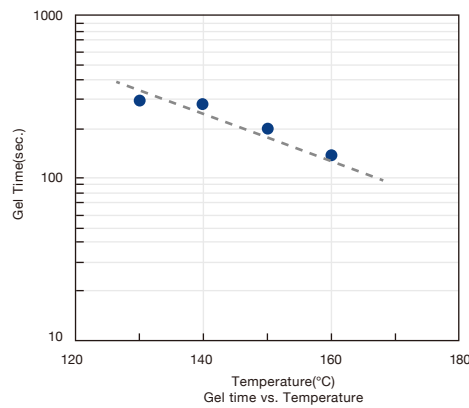
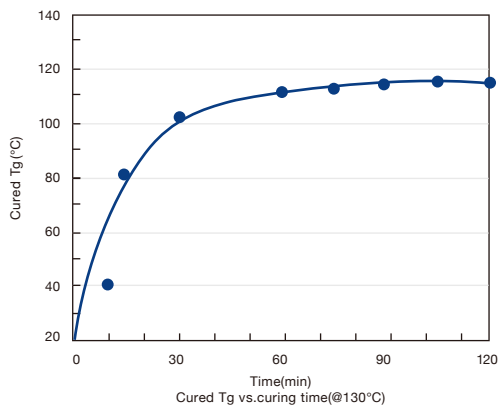
Storage temperature

-18°C or less	6 months
5°C or less	3 months
20°C or less	1.5 months

BAGGING PROCEDURE



CURING CHARACTERISTICS



Specifications of Torayca® prepreg products

Standard length

- Unidirectional prepreg : 100 m
- Woven prepreg : 50 or 100 m

Packing form

The prepreg is rolled around a paper tube together with a silicon-coated separation paper, and the roll is packed in a sealed polyethylene bag to prevent moisture absorption.

- Diameter of paper tube for unidirectional prepreg : 300 mm in inner diameter
- Diameter of paper tube for woven prepreg : 76 or 300 mm in inner diameter

Product shipment

The 180°C curing type is shipped refrigerated (-18°C or less).

The 130°C curing type is shipped on regular trucks unless otherwise requested.

Handling precautions

1. Store the received prepreg in a freezer or refrigerator without delay.
2. Torayca® prepreg has been adjusted to have the best tackiness at room temperature (24 ± 3°C).
3. Mixing-in of impurities into the prepreg may cause curing problems or defective product.
4. Implement safety measures when handling the prepreg.
 - Epoxy resin may cause inflammation to some people.
 - Ventilate the work room well to prevent resin volatile matter from staying indoors.
 - Torayca® is a good conductor. Give consideration to electrical apparatuses.
 - Do not incinerate waste carbon fiber materials and carbon fiber induced products, but dispose of them correctly as industrial waste.

Handling precautions for carbon fiber

- Carbon fiber is conductive. Implement dust-proof measures to prevent electrical equipment from shorting, malfunctioning, etc., due to fibers scattering and flying around in the work area.
- No cases of health problems due to carbon fiber have been reported, but short fibers may attach to the skin or viscous membrane to cause itchiness or inflammation. When handling carbon fiber, wear a mask, gloves and other protective equipment to prevent carbon fiber from being inhaled or attaching to the skin.
- Incinerating waste material of carbon fiber or carbon fiber composite material may cause fibers to scatter and fly around and cause electrical failures. It is appropriate to bury such material as industrial waste.

Cautions

1. This product documentation does not guarantee the result or product safety/compliance achieved by applying the information provided herein. When using the product, confirm its safety/compliance according to the purpose of use.
2. Our carbon fiber Torayca® products or technologies relating to the design, manufacturing or use thereof may be classified as the goods specified in 1 to 15 of Appended Table 1 of the Export Trade Control Order, or as the technologies specified in 1 to 15 of Appended Table 1 of the Foreign Exchange Order, or as other goods/technologies that may be specified by the government as being subject to export control for national security reasons.

When exporting or providing to a non-resident any such Torayca® product or any such technology relating to the design, manufacture or use of Torayca® product, an export permission or service transaction permission must be obtained from the Minister of Economy, Trade and Industry or other necessary procedure must be taken according to the Foreign Exchange and Foreign Trade Act or other relevant law, notice, etc.

Torayca® is a registered trademark of Toray's high-performance carbon fiber.

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