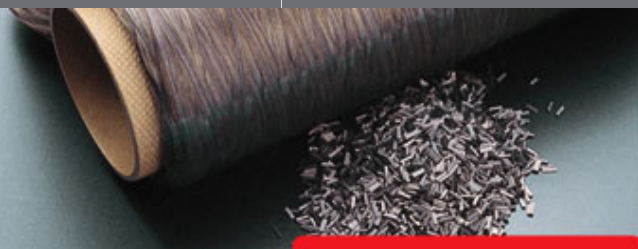


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 TENAX maximizes the potential of carbon fiber.

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TENAX

- Filament
- Chopped Fiber
- Woven Fabric
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Pyromex

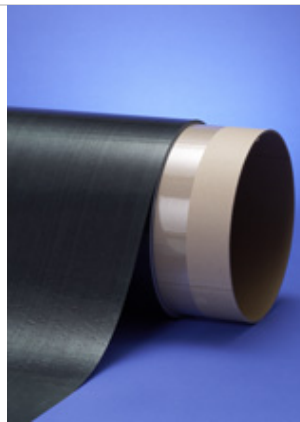
Composite

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 Products
TENAX

— Prepreg

Widely used in familiar products such as golf club shafts or fishing rods, and also as cutting-edge ACMs (Advanced Composite Materials) for aircrafts and rockets, Prepreg is made by impregnating fibers such as carbon fiber, glass fiber, and aramid fiber with uncured thermosetting resins (epoxy resins). Prepreg comes in various types, including unidirectional, woven, and roving. Thermoplastic Prepreg is also available for special needs.


[Products & properties](#) [PDF: 183KB]

Properties of prepreg
Product types

	Product types	Standard shipping forms
Unidirectional prepreg (UD)	100 cm, 50 cm-width sheets	Roll wound (100m)
	6-inch width (for ATL)	Reel wound (200-300m)
	Narrow fabrics	Reel wound
Woven prepreg	100 cm width	Roll wound (100m)
Roving prepreg		Bobbin wound

Applicable fibers

- Carbon fibers : TENAX (e.g., HTA, IM, UM)
- Glass fibers, aramid fibers
- Others : SiC fibers, pitch-based carbon fibers

Major products are listed in Table 1

Table 1 Prepreg of Toho

Product No.	Resin	Cure temperature	Characteristics	Application examples

(Toho assigned)				
112	Epoxy	125 °C	General use	Corporations, satellites, sports/recreation
118	Epoxy	125 °C	General use	Corporations, satellites, sports/recreation
11H	Epoxy	125 °C	General use	Corporations, satellites
123	Epoxy	125 °C	Flame retardant, shock resistant	Railway cars
171	Epoxy	98-180 °C	Die prepreg	CFRP, GFRP die
144	Epoxy	125 °C	Self adhesive, flame retardant	Aircraft parts, railway cars
101	Epoxy	180 °C	Heat resistant	Aircraft parts
132	Epoxy	180 °C	Heat resistant, high elongation	Aircraft parts
133	Epoxy	180 °C	High CAI	Aircraft parts
135	Epoxy	180 °C	Heat resistant, self adhesive	Aircraft parts
331	Bismalamide	180 °C	Heat resistant, shock resistance	Aircraft parts
332	Bismalamide	180 °C	Heat resistant, high CAI	Aircraft parts
301	Bismalamide	180-240 °C	Highly heat resistant	Automobiles, Aircraft parts

<Note>

1. Die prepreg is marketed under the product name of BES Tool.
2. As for thermoplastic prepreg, carbon fiber prepreg with matrix resins PEEK, PC, and PEI have been developed.