

TENAX maximizes the potential of carbon fiber.

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TENAX

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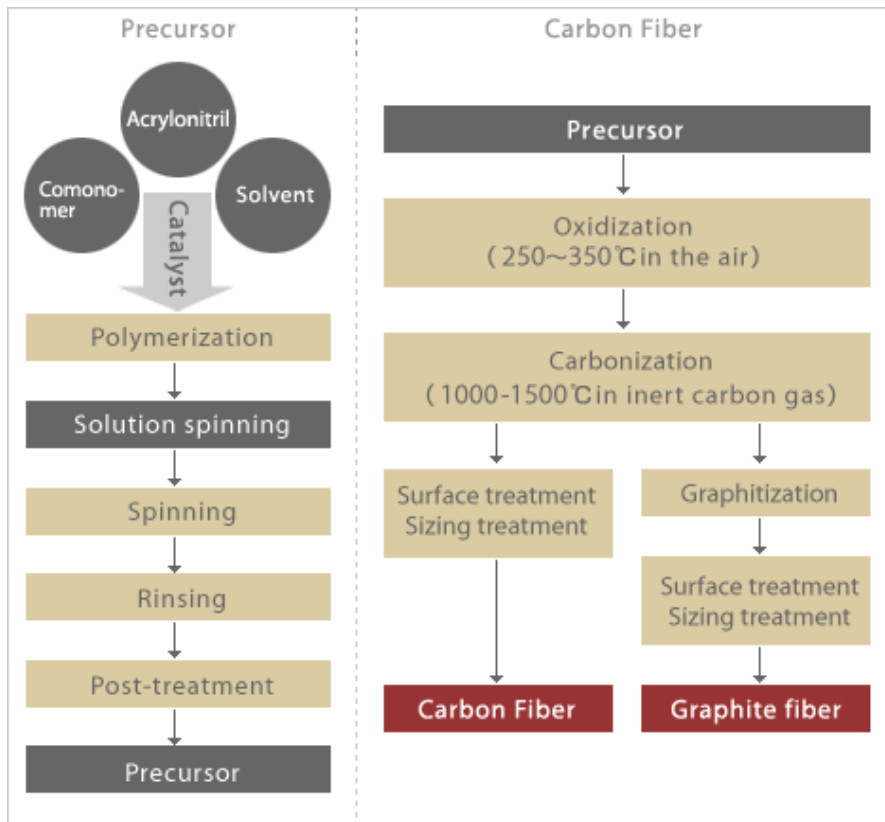
Composite

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Products  
**What is carbon fiber?**

**Manufacturing Process of Carbon Fiber (PAN-based)**

Carbon fiber is made by carbonizing special acrylic fiber (precursor) as a raw material



**Product Range**

HTA-12K is the most common carbon fiber (PAN-based) produced and used around the world.

**Classified by number of filaments**

Type	Filament Symbol	Filament Count	Performance
HTA	1K	1000	Tensile strength: normally 400kgf / mm <sup>2</sup> or higher
	3K	3000	Tensile modulus : 24x10 <sup>3</sup> kgf / mm <sup>2</sup>

6K	6000	
12K	12000	
24K	24000	

#### Classified by performance

Symbol	Tensile Strength ( kgf / mm <sup>2</sup> )	Tensile Modulus ( ×10 <sup>3</sup> kgf / mm <sup>2</sup> )
HTA ( High strength type: general use )	400	24
UT ( Higher strength type )	500-	24-
IM ( Intermediate modulus / High strength type )	480-600	29-30
HM ( High modulus type )	300-	35
UM ( High modulus / High strength type )	350-500	40-68
Steel	40	21

#### Properties :

High in strength and modulus. A variety of products with a wide range of strength and modulus can be manufactured through the different processes

#### Other properties :

Chemically stable, resistant to acids, bases, and solvents, with a small coefficient of linear expansion, good dimensional stability, and conductivity. Fiber reinforcement materials can be produced by combining various materials.