

NYLON  
CARBON FIBER



## eSUN Nylon Fibre de carbone haute température - Naturel Filament 1.75mm 750G

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**SKU:** EsunPAHT-CF175N0.75-3DW879HJFC41Q

**Price:** 890.00 DH

**Stock:** instock

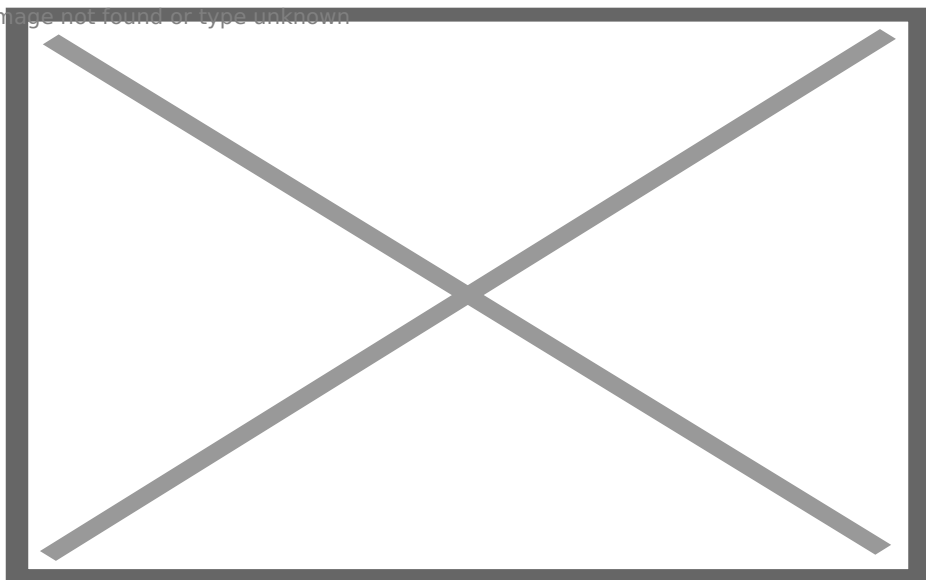
**Categories:** [3D Filaments](#), [Filament Nylon](#)

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### Product Description

**ePA6-CF has been renamed to ePAHT-CF. Both names refer to the same product.**

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ePAHT-CF (nylon carbon fiber) is a material jointly developed by eSUN and LUVOCOM.

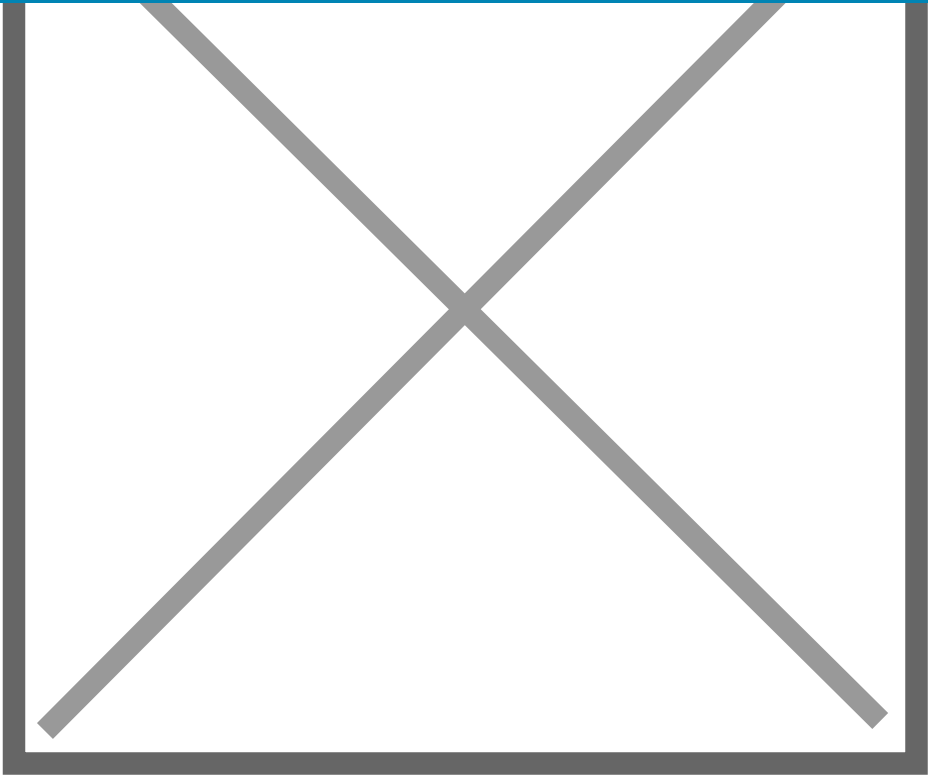
Compared with PA66, the size and electrical properties of ePAHT-CF are less affected by humidity and temperature. The strength of ePAHT-CF is higher than other eSUN nylon series products. The surface of the printed items is matte and fine.

On the basis of the performance of PA6, 15% high-rigidity carbon fiber is added, high-strength, high-rigidity, impact resistance, self-lubricating and abrasion resistance, excellent chemical resistance, high temperature resistance, the continuous use temperature of the parts can reach 150°C, and the short-term use temperature can reach 180°C. It can be detected by metal detector ( $\geq 2 \text{ mm}^3$ ). The strip electrode insulation resistance and surface resistance are less than  $10^2\Omega$ . It can be used as a conductive and antistatic material.

Compared with pure nylon, the shrinkage rate and water absorption rate are greatly reduced. The printed model has high dimensional stability, good mechanical performance, good interlayer bonding, excellent printability, low distortion, no warping, and no chamber or bed heat is required.

#### Product advantages:

- High strength, high rigidity, the strength is much higher than other eSUN nylon series products
- Excellent chemical resistance
- High temperature resistance
- High dimensional stability
- Excellent surface effect
- Excellent printability, good interlayer adhesion, no warping
- Conductive and antistatic



Physical performance indicators:

Filament	ePAHT-CF
Melt Index	19.68(270°C/2.16kg)
Density	1.4g/cm <sup>3</sup>
Impact strength	12.74
Tensile Strength	173.37Mpa
Elongation at break	8.93%
Bending strength	171.64Mpa
Flexural modulus	5612.41Mpa

Heat distortion temperature	190°C
Continuous use temperature (UL 746B)	150°C
Short-term use temperature	180°C
Bar electrode insulation resistance	≤10 <sup>2</sup> Ω
Surface resistance	<10 <sup>2</sup> Ω

Material Comparison Chart

Filament	ePA-CF	ePAHT-CF	ePA12-CF	
Impact strength	18.67 KJ/M <sup>2</sup>	12.74 KJ/M <sup>2</sup>	11.33 KJ/M <sup>2</sup>	
Tensile Strength	140Mpa	<b>173.37 Mpa</b>	108.18 Mpa	
Elongation at break	10.61%	8.93%	9.02%	
Bending strength	140Mpa	<b>171.64Mpa</b>	116.58Mpa	
Flexural modulus	4363Mpa	<b>5612.41Mpa</b>	3335 Mpa	
Heat distortion temperature	155°C	<b>190°C</b>	90°C	

Print Performance Comparison

	ePA-CF	ePAHT-CF	
Surface finish	No obvious layer pattern Matte surface	No obvious layer pattern Matte surface	ePAHT-CF=ePA-CF

Hole-column fit model  (smaller value is better)	0.3mm	0.3mm	ePAHT-CF=ePA-CF
Suspension model  (larger value is better)	≤70°	≤70°	ePAHT-CF=ePA-CF
Suspended bridge  (larger value is better)	50mm	50mm	ePAHT-CF=ePA-CF

Print Parameters

Filament	ePAHT-CF
Recommended print temperature	260-300°C
Bed	45-60°C(Masking paper, PVP solid glue, glass board, carbon fiber board, PEI)
Fan	0%
Print speed	40-100mm/s

Note: Print test conditions: nozzle 280°C; bed 80°C; speed 40mm/s