

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

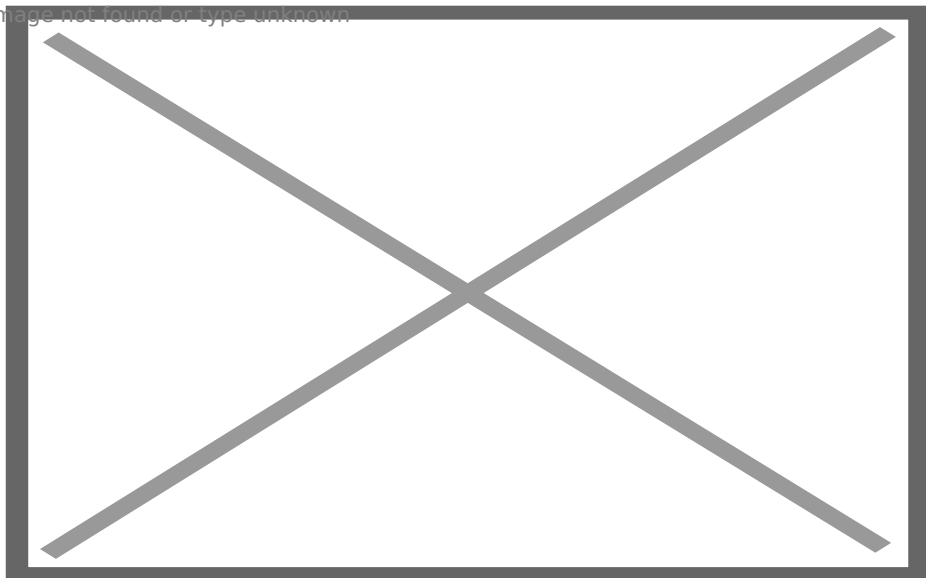
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Product Description

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.

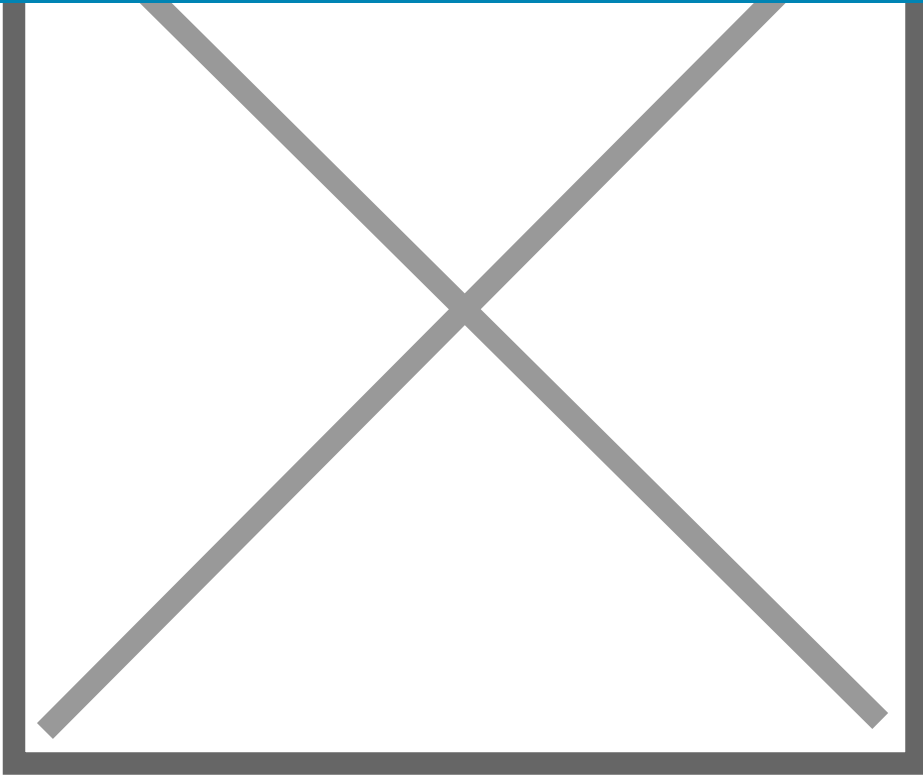
Compared with PA66, the size and electrical properties of ePAHT-CF are less affected by humidity and temperature. The strength of ePAHT-CF is higher than other eSUN nylon series products. The surface of the printed items is matte and fine.

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 ³ |
| 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 ² Ω |
| Surface resistance | <10 ² Ω |

Material Comparison Chart

| Filament | ePA-CF | ePAHT-CF | ePA12-CF | |
|-----------------------------|-------------------------|-------------------------|-------------------------|--|
| Impact strength | 18.67 KJ/M ² | 12.74 KJ/M ² | 11.33 KJ/M ² | |
| Tensile Strength | 140Mpa | 173.37 Mpa | 108.18 Mpa | |
| Elongation at break | 10.61% | 8.93% | 9.02% | |
| Bending strength | 140Mpa | 171.64Mpa | 116.58Mpa | |
| Flexural modulus | 4363Mpa | 5612.41Mpa | 3335 Mpa | |
| Heat distortion temperature | 155°C | 190°C | 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) | $\leq 70^\circ$ | $\leq 70^\circ$ | 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