FORWARD AM
Innovating Additive Manufacturing

BASF
We create chemistry

Ultrafuse® PET CF15

Combines Easy Processability and very Low Moisture Uptake with Excellent Strength and Rigidity – at an Affordable Cost

Ultrafuse® PET CF15 is a polyethylene terephthalate reinforced with 15 % carbon fiber. This engineering filament is easier to process than other carbon fiber reinforced filaments. Users will be able to 3D-print new components that remain fully functional under higher mechanical and thermal loads.
Ultrafuse® PET CF15 is an engineering fi lament optimized to enable users to develop new 3D printing applications with higher requirements. With its superior heat resistance, high strength and rigidity, this is a filament for a wide range of demanding industrial applications. Its high dimensional stability and very low moisture uptake makes it a perfect solution for applications in humid operating environments.

Benefits at a Glance

- Strong, rigid components
- Easy to process
- Very low moisture absorption
- Heat resistant up to 108 °C
- High dimensional stability
- Compatible with BVOH and HIPS for support
- Excellent surface finish

Example Applications

- Automotive
- Jigs and fixtures
- Applications for humid operating environments

Material Properties

Tensile strength (MPa)	12.5 (ZX), 63.2 (XY)
Flexural modulus (MPa)	2253(ZX), 6293 (XZ), 5452 (XY)
Elongation (Break)	0.5 % (ZX), 3.7 %(XY)
Impact strength Izod notched (kJ/m²)	2.0 (z-x), 5.0 (XZ), 5.7 (XY)
Impact strength Izod unnotched (kJ/m²)	2.4 (ZX), 22.6 (XZ), 25.1 (XY)
HDT @ 0.45 MPa	108 °C

Printing Guidelines

Print Speed	30–80 mm / sec
NozzleTemperature	250-270 °C
Nozzle	Hardened/ ruby nozzle 0.6 mm diameter
Bed Temperature	100–120 °C
Bed Modification	PEI or clean glass
Fan Speed	0 %
Layer Hight	0.2–0.4 mm

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