PROTOTAL | UK

MATERIAL DATA SHEET: PA12 + CARBON FIBER (603 CF)

One of the lightest materials used in 3D printing, Prototal UK is proud to offer the cutting-edge PA 603 CF as part of our additive manufacturing services.

Perfect for components requiring strength, precision, and a smooth surface finish.

Typical Physical Properties			
Property	Test Method	Imperial	Metric
Color / Appearance	Visual	Dark Grey	Dark Grey
Bulk Density	ASTM D1895	0.237 oz/in^3	0.41 g/cm^3
Average Particle Size (D50)	Laser Diffraction	0.002 inches	50 microns
Particle Size Range /D10-D90)	Laser Diffraction	0.0001-0.004 inches	35- 100 microns
Sintered Part Density	ASTM D792	0.634 oz/in^3	1.10 g/cm^3
Heat Deflection Temperature	ASTM D648	343 ˚F at 264 psi	173˚ C at 1.82 Mpa
Heat Deflection Temperature	ASTM D648	354 ˚F at 66 psi	179˚ C at 0.45 Mpa
Ultimate Tensile Strength (XY)	ASTM D638	12,328 psi	85 Mpa
Tensile Modulus (XY)	ASTM D638	1,145,797 psi	7,900 Mpa
Flexural Modulus (XY)	ASTM D790	1,329,995 psi	9,170 Mpa
Elongation at Break (XY)	ASTM D638	4%	4%
Izod Impact Strength - Notched (XY)	ASTM D256	1,58 ft-lb/in	84 J/m
Izod Impact Strength - Unnotched (XY)	ASTM D256	3.03 ft-lb/in	161 J/m