

NYLON PA12 CF 15

Material	Polyamide 12 reinforced with 15 % carbon fibres.
Color	Black
Properties	exceptional strength, rigidity and dimensional stability, high thermal resistance up to 160°C, low weight.
Diameter	1.75mm / 2.85mm
Diameter tolerance	+/- 0.03mm
Tolerance roundness	98%
Printing temperature	250–290 °C
Heatbed temperature	90–120°C
Net weight	0.5kg / 1 kg / 2,5kg / 8kg
Gross weight	0.85kg / 1.4kg / 3,45kg / 9,4kg
Spool dimensions	200x52x43mm / 200x52x80mm / 200x52x100mm / 355x35x165mm
Packaging	Vacuum packaging, carton box, moisture absorber



Properties of the NYLON PA12 CF 15

Mechanical Properties

		Standard	Unit	State	
Tensile E-Modulus	1 mm/min	ISO 527	MPa	cond.	7500
Tensile strength at break	5 mm/min	ISO 527	MPa	cond.	100
Elongation at break	5 mm/min	ISO 527	%	cond.	5
Impact strength	Charpy, 23°C	ISO 179/2-1eU	kJ/m ²	cond.	40
Impact strength	Charpy, -30°C	ISO 179/2-1eU	kJ/m ²	cond.	40
Notched impact strength	Charpy, 23°C	ISO 179/2-1eA	kJ/m ²	cond.	10
Notched impact strength	Charpy, -30°C	ISO 179/2-1eA	kJ/m ²	cond.	5
Ball indentation hardness		ISO 2039-1	MPa	cond.	100

Thermal Properties

Melting point	DSC	ISO 11357	°C	dry	178
Heat deflection temperature HDT/A	1.8 MPa	ISO 75	°C	dry	160
Heat deflection temperature HDT/C	8.0 MPa	ISO 75	°C	dry	100
Maximum usage temperature	long term	ISO 2578	°C	dry	90 - 120
Maximum usage temperature	short term	ISO 2578	°C	dry	150

Electrical Properties

Specific volume resistivity		IEC 60093	Ω · m	cond.	100
Specific surface resistivity		IEC 60093	Ω	cond.	< 50

General Properties

Density		ISO 1183	g/cm ³	dry	1.07
Flammability (UL94)	0.8 mm	ISO 1210	rating	-	HB
Water absorption	23°C/sat.	ISO 62	%	-	1.1
Moisture absorption	23°C/50% r.h.	ISO 62	%	-	0.7