PA12-CF

Product Description

PA12-CF is a carbon fiber reinforced PA12 (Nylon 12) filament. Thanks to the low moisture sensitivity of PA12, this product features outstanding mechanical and thermal properties even after the moisture conditioning process.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183	g/cm^3	1.06
Glass transition temperature	DSC, 10°C /min	°C	108
Melting temperature	DSC, 10°C /min	°C	165
Heat deflection temperature	ISO 75 1.8MPa	°C	105
Melt index	280°C, 2.16 kg	g/10min	25

MECHANICAL PROPERTIES[1]	TEST METHOD	UNITS	TYPICAL VALUE
Tensile strength	ISO 527	MPa	69.3
Young's modulus	ISO 527	MPa	3748
Elongation at break	ISO 527	%	2.9
Flexural strength	ISO 178	MPa	114.1
Flexural modulus	ISO 178	MPa	3532
Impact strength	ISO 179, Notched	kJ/m^2	12.1

Note:

1. All testing specimens were printed using the following conditions:
Printing temperature = 270 °C, printing speed = 45 mm/s, number of shells = 2, and 100% infill.
All specimens were annealed at 80℃ for 24h and dried for 48h prior to testing.