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Product Data Sheet & General Processing Conditions

RTP 4485 High Temperature Nylon (HTN) Carbon Fiber

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	30 %	30 %	
Specific Gravity	1.30	1.30	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0005 - 0.0010 in/in	0.05 - 0.10 %	D 955
Water Absorption, 24 hrs @ 23°C	0.400 %	0.400 %	D 570

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.2 ft-lbs/in	64 J/m	D 256
unnotched 1/8 in (3.2 mm) section	12.0 ft-lbs/in	641 J/m	D 4812
Tensile Strength	36000 psi	248 MPa	D 638
Tensile Elongation	1.7 %	1.7 %	D 638
Tensile Modulus	3.50 x 10 ⁶ psi	24132 MPa	D 638
Flexural Strength	52000 psi	359 MPa	D 790
Flexural Modulus	3.00 x 10 ⁶ psi	20685 MPa	D 790
Hardness			
Rockwell, R	125	125	D 785

THERMAL

Deflection Temperature			
@ 264 psi (1820 kPa)	500 °F	260 °C	D 648

PROPERTY NOTES

Data herein is typical and not to be construed as specifications.

Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	590 - 650 °F	310 - 343 °C
Mold Temperature	275 - 325 °F	135 - 163 °C
Drying	4 hrs @ 175 °F	4 hrs @ 79 °C
Moisture Content	0.10 %	0.10 %
Dew Point	-40 °F	-40 °C

PROCESSING NOTES

Desiccant Type Dryer Required.