

CELSTRAN® PA6-CF40-01 - PA6

Description

Celstran® PA6-CF40-01 is a 40% long Carbon fiber Polyamide. This material imparts excellent impact and modulus properties that exceed that of short fiber PA6.

Physical properties	Value	Unit	Test Standard
Density	81.8	lb/ft ³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	4.21E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	45000	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	1.3	%	ISO 527-1, -2
Flexural modulus, 23°C	3.84E6	psi	ISO 178
Flexural strength, 23°C	66700	psi	ISO 178
Charpy impact strength, 23°C	34.7	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	12.4	ft-lb/in ²	ISO 179/1eA

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.02	%
Drying time	4 - 6	h
Drying temperature	176	°F
Temperature	Value	Unit
Zone1 temperature	509 - 545	°F
Zone2 temperature	518 - 554	°F
Zone3 temperature	536 - 572	°F
Zone4 temperature	536 - 572	°F
Nozzle temperature	536 - 572	°F
Melt temperature	536 - 572	°F
Mold temperature	185 - 221	°F
Screw Speed	Value	Unit
Screw speed diameter, 25mm	medium	RPM
Screw speed diameter, 40mm	medium	RPM
Screw speed diameter, 55mm	slow-medium	RPM
Screw speed diameter, 75mm	slow-medium	RPM

Characteristics

Special Characteristics	Chemical resistant, Fuel resistant
Product Categories	Carbon fiber reinforced, Specialty, Tribological
Processing	Extrusion
Delivery Form	Pellets