

CELSTRAN® PA6-GF60-01 AF3001 Natural - PA6

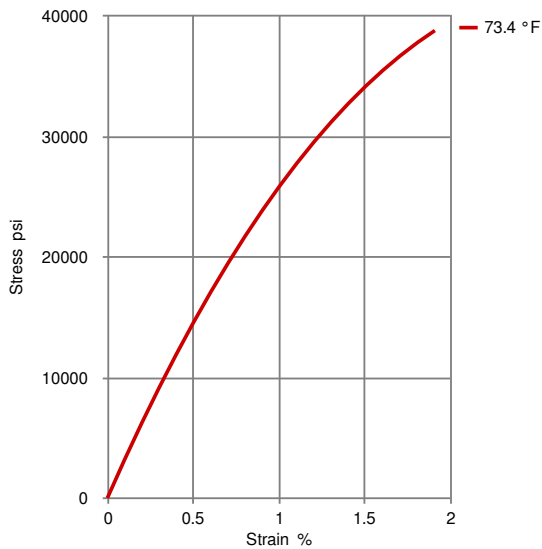
Description

60% long strand glass fiber reinforced nylon 6
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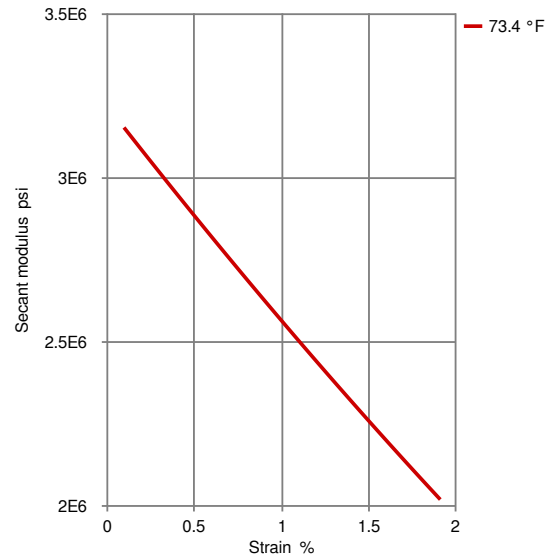
Physical properties	Value	Unit	Test Standard
Density	106	lb/ft ³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2.96E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	39900	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	1.9	%	ISO 527-1, -2
Flexural modulus, 23°C	2.67E6	psi	ISO 178
Flexural strength, 23°C	66000	psi	ISO 178
Charpy notched impact strength, 23°C	25.7	ft-lb/in ²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	419	°F	ISO 75-1, -2

Diagrams

Stress-strain



Secant modulus-strain



Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.18	%
Drying time	2 - 4	h
Drying temperature	158 - 176	°F

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Temperature	Value	Unit
Hopper temperature	158 - 176	°F
Feeding zone temperature	68 - 122	°F
Zone1 temperature	509 - 527	°F
Zone2 temperature	518 - 527	°F
Zone3 temperature	527 - 536	°F
Zone4 temperature	527 - 536	°F
Nozzle temperature	527 - 536	°F
Melt temperature	518 - 563	°F
Mold temperature	176 - 212	°F

Other text information

Pre-drying

CELSTRAN PA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be $\leq -30^{\circ}\text{C}$. The time between drying and processing should be as short as possible.

Longer pre-drying times/storage

Note: Material can be over dried and may discolor.

Injection molding

Celstran can be processed on a standard injection molding unit.
A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering.
A free flowing check ring assembly is recommended.

Melt Temp: 290-300°C.

Mold Temp: 90- 100°C.

Characteristics

Special Characteristics	Auto spec approved, Chemical resistant, Fuel resistant
Product Categories	Glass reinforced, Tribological
Processing	Transfer molding
Delivery Form	Pellets