

CELSTRAN® PA6-GF50-03 AD3019 Black - PA6

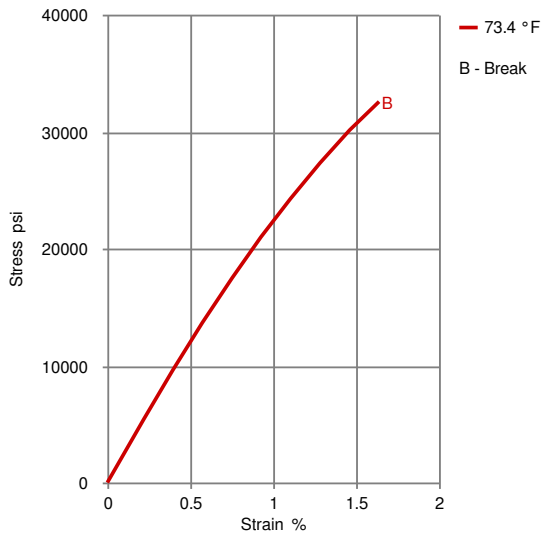
Description

50% glass reinforced, UV and Heat stabilized Nylon 6
 Nylon 6 with 50% long glass reinforcement, heat stabilized

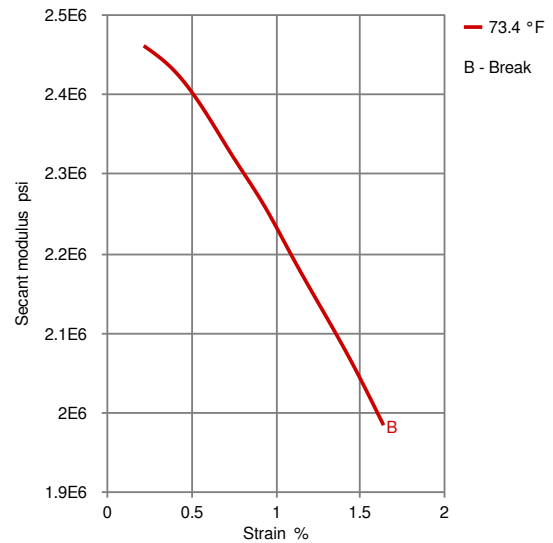
Physical properties	Value	Unit	Test Standard
Density	97.4	lb/ft ³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2.47E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	32600	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	1.6	%	ISO 527-1, -2
Flexural modulus, 23 °C	2.2E6	psi	ISO 178
Flexural strength, 23 °C	52900	psi	ISO 178
Charpy notched impact strength, 23 °C	15.2	ft-lb/in ²	ISO 179/1eA

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 - 536	°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: 285-295°C.

Mold Temp: 85- 95°C.

Characteristics

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