CELSTRAN® PA66-GF40-02-NATURAL

CELSTRAN® Long Fibre

40% Long glass fiber reinforced, heat stabilized, Nylon 6/6

Product information

Resin Identification	PA66-LGF40	ISO 1043
Part Marking Code	>PA66-LGF40<	ISO 11469

Typical mechanical properties

Tensile modulus	1.94E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	32600	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2	%	ISO 527-1/-2
Flexural modulus	1.68E6	psi	ISO 178
Flexural strength	52900	psi	ISO 178
Flexural strain at failure	4.1	%	ISO 178
Charpy impact strength, 23°C	45.2	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	21.9	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	18.6	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	12.4	ftlb/in²	ISO 179/1eA
Puncture energy, 23°C	8	J	ISO 6603-2
Puncture energy, -30°C	17.8	J	ISO 6603-2
Izod notched impact strength, 23°C	17.5	ftlb/in²	ISO 180/1A
Izod impact strength, 23°C	22.4	ftlb/in²	ISO 180/1U
Izod impact strength, -30°C	20.5	ftlb/in²	ISO 180/1U
Izod impact strength, -40°C	18.8	ftlb/in²	ISO 180/1U

Thermal properties

Melting temperature, 10°C/min	502	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	491	°F	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	464	°F	ISO 75-1/-2

Physical/Other properties

Density	0.0523	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	563	°F
Min. melt temperature	545	°F
Max. melt temperature	581	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F
Max. mold temperature	248	°F
Hold pressure range	7250 - 14500	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	h²+2	s

Revised: 2024-04-15 Source: Celanese Materials Database

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Characteristics

Processing	Injection Molding
Special characteristics	Heat stabilized or stable to heat

Additional information

Injection molding

Preprocessing

PA6&PA66 drying requirements: 4 hrs. @80° C.
A dehumidifier or desiccant dryer is recommended.

Processing

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: 295-300°C.
Mold Temp: 85- 95°C.

Processing Notes

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 =< -30°C. The time between drying and processing should be as short as possible.

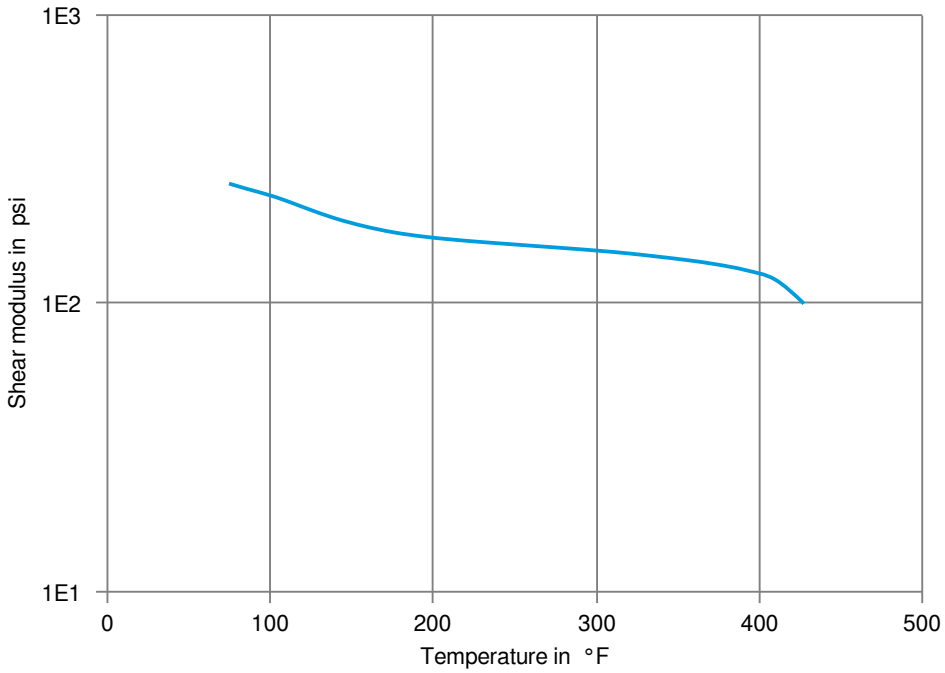
Storage

Note: Material can be over dried and may discolor.

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Dynamic Shear modulus-temperature



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