

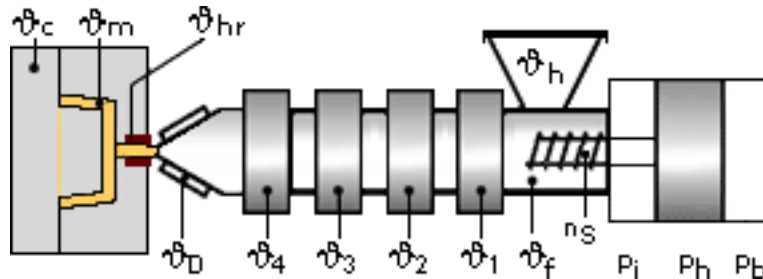
CELSTRAN® PA6-GF40-01 | PA6 | Glass Reinforced

Description

40% long strand glass fiber reinforced nylon 6 Natural

Physical properties	Value	Unit	Test Standard
Density	1450	kg/m ³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	12400	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	205	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	2.11	%	ISO 527-2/1A
Flexural modulus (23°C)	11100	MPa	ISO 178
Flexural strength (23°C)	335	MPa	ISO 178
Charpy notched impact strength @ 23°C	32	kJ/m ²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
DTUL @ 1.8 MPa	210	°C	ISO 75-1/-2

Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.18%

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.

Note: Material can be over dried and may discolor.

Drying time: 2 - 4 h

Drying temperature: 70 - 80 °C

Temperature:

	T _{Mold}	T _{Melt}	T _{Nozzle}	T _{Zone4}	T _{Zone3}	T _{Zone2}	T _{Zone1}	T _{Feed}	T _{Hopper}
min (°C)	80	270	275	275	275	270	265	20	70
max (°C)	100	280	280	280	280	275	275	50	80

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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: 275-285°C.
Mold Temp: 85- 95°C.

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Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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