

CELSTRAN® PA6-GF50-01 | PA6 | Glass Reinforced

Description

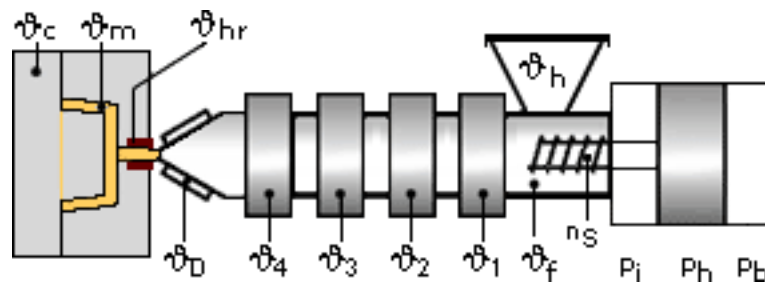
50% long strand fiber glass reinforced nylon 6 Natural

Physical properties	Value	Unit	Test Standard
Specific gravity	1.56	-	ASTM D792
Mold shrinkage - flow direction	.0005-.001	in/in	ASTM D955
Mold shrinkage - transverse direction	.002-.003	in/in	ASTM D955

Mechanical properties	Value	Unit	Test Standard
Elongation @ break (250°F)	2.3	%	ASTM D638
Elongation @ break (-40°F)	2.6	%	ASTM D638
Elongation @ break (73°F)	2.2	%	ASTM D638
Tensile modulus (-40°F)	2.32E6	psi	ASTM D638
Tensile modulus (73°F)	2.55E6	psi	ASTM D638
Tensile modulus (250°F)	1.31E6	psi	ASTM D638
Tensile strength @ break (-40°F)	46700	psi	ASTM D638
Tensile strength @ break (73°F)	39400	psi	ASTM D638
Tensile strength @ break (250°F)	17900	psi	ASTM D638

Thermal properties	Value	Unit	Test Standard
Heat deflection temperature @264 psi	415	°F	ASTM D648

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: 158 - 176 °F

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Temperature:

	°Mold	°Melt	°Nozzle	°Zone4	°Zone3	°Zone2	°Zone1	°Feed	°Hopper
min (°F)	176	518	527	527	527	518	509	68	158
max (°F)	212	536	536	536	536	527	527	122	176

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.

Contact Information

Americas

8040 Dixie Highway, Florence, KY 41042 USA

Product Information Service

t: +1-800-833-4882 t: +1-859-372-3244

Customer Service

t: +1-800-526-4960 t: +1-859-372-3214

e: info-engineeredmaterials-am@celanese.com

Asia

4560 Jinke Road, Zhang Jiang Hi Tech Park

Shanghai 201203 PRC

Customer Service

t: +86 21 3861 9266 f: +86 21 3861 9599

e: info-engineeredmaterials-asia@celanese.com

Europa

Am Unisys-Park 1, 65843 Sulzbach, Germany

Product Information Service

t: +(00)-800-86427-531 t: +49-(0)-69-45009-1011

e: info-engineeredmaterials-eu@celanese.com

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