

BASF Capron® GR40 40% Glass-Filled Nylon 6 (Dry) (discontinued **)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 40% Glass Fiber Filled

Material Notes:

Capron GR40 is a 40% glass reinforced polyamide 6 injection molding compound offering the highest level of strength, stiffness, high temperature performance and dimensional stability. It is also available in heat stabilized (Capron GR40 HS) and/or pigmented versions. Capron GR40 HS is generally recommended for applications such as power tool housings, cattle ear taggers, luggage frames, fans and pressure regulator housings. Data provided by Allied Signal. Processing: Max. water content 0.12%. Product is supplied in sealed containers and drying is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 85°C (185 °F). Is recommended. Drying time is dependent on moisture level. Melt Temperature: 270-295 degC (518-563 degF). Mold Temperature: 80-95 degC (176-203 degF). Injection and Packing Pressure: 35-125 bar (500-1500psi) This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics critical, a mold surface temperature of 80-95 degC (176-203 degF) is required. Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off. Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. A maximum of 3.5 bar (50 psi) is recommended to minimize glass fiber breakage. Fast fill rates are recommended to insure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate. Capron® is no longer a part of the BASF standard line. The BASF nylon products have been consolidated in the Ultramid ® line.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Capron-GR40-40-Glass-Filled-Nylon-6-Dry-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 lb/in ³	ISO data
Water Absorption	1.0 %	1.0 %	24 hrs; ISO data
Moisture Absorption at Equilibrium	1.6 %	1.6 %	50% RH; 23°C; ISO data
Water Absorption at Saturation	5.7 %	5.7 %	in water; 23°C; ISO data
Linear Mold Shrinkage	0.0020 cm/cm	0.0020 in/in	ISO data
	0.0020 cm/cm	0.0020 in/in	ASTM data MD
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	ISO Data

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	170 MPa	24700 psi	Same value from ASTM and ISO tests; 5 mm/min.
Elongation at Break	3.0 %	3.0 %	ISO, 5 mm/minI
	3.0 %	3.0 %	ASTM, 5 mm/minI
Tensile Modulus	12.5 GPa	1810 ksi	same value from ASTM and ISO test.

Mechanical Properties	Metric	English	Comments
Poissons Ratio	0.35	0.35	ISO data
Shear Modulus	4.60 GPa	667 ksi	calculated

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	11.1 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO data
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	60.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	33.3 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO data
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
Melting Point	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	ASTM and ISO test
Deflection Temperature at 0.46 MPa (66 psi)	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	ISO data
Deflection Temperature at 1.8 MPa (264 psi)	210 $^{\circ}\text{C}$	410 $^{\circ}\text{F}$	ISO Data

Electrical Properties	Metric	English	Comments
Electrical Resistivity	$\geq 1.00\text{e}+15$ ohm-cm	$\geq 1.00\text{e}+15$ ohm-cm	ISO data

Processing Properties	Metric	English	Comments
Processing Temperature	275 $^{\circ}\text{C}$	527 $^{\circ}\text{F}$	See Materials Notes
Mold Temperature	95.0 $^{\circ}\text{C}$	203 $^{\circ}\text{F}$	See Materials Notes
Drying Temperature	85.0 $^{\circ}\text{C}$	185 $^{\circ}\text{F}$	See Materials Notes

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China