

BASF Capron® 8234G 44% Glass-Filled Nylon 6 (Dry) (discontinued **)

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

Material Notes:

Capron 8234G is a 44% glass fiber reinforced polyamide 6 injection molding compound offering the highest level of strength, stiffness, high temperature performance and dimensional stability. It is available in natural, black, weather resistance and pigmented versions. Capron 8234G 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-8234G-44-Glass-Filled-Nylon-6-Dry-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.49 g/cc	0.0538 lb/in ³	ISO data
Water Absorption	0.90 %	0.90 %	24 hrs; ISO data
Moisture Absorption at Equilibrium	1.5 %	1.5 %	50% RH; 23°C; ISO data
Water Absorption at Saturation	5.2 %	5.2 %	in water; 23°C; ISO data
Viscosity Measurement	50	50	Formic Acid Viscosity; ISO data
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	ASTM and ISO value
Linear Mold Shrinkage, Transverse	0.0090 cm/cm	0.0090 in/in	ISO Data

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	230 MPa	33400 psi	Same value from ASTM and ISO tests; 5 mm/min.
Elongation at Break	2.0 %	2.0 %	ISO, 5 mm/min
	2.0 %	2.0 %	ASTM, 5 mm/min
Tensile Modulus	13.5 GPa	1960 ksi	ASTM test

Mechanical Properties	Metric MPa	English	Comments
Flexural Yield Strength	350 MPa	50800 psi	ASTM Data
Flexural Modulus	11.2 GPa	1620 ksi	ISO Value
	11.7 GPa	1700 ksi	ASTM Value
Poissons Ratio	0.35	0.35	ISO data
Shear Modulus	5.00 GPa	725 ksi	calculated

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	32.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 20.0 $^{\circ}\text{C}$	17.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 68.0 $^{\circ}\text{F}$	ISO data
CTE, linear, Transverse to Flow	79.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 20.0 $^{\circ}\text{C}$	43.9 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 68.0 $^{\circ}\text{F}$	ISO data
Melting Point	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	ASTM and ISO test
Deflection Temperature at 0.46 MPa (66 psi)	219 $^{\circ}\text{C}$	426 $^{\circ}\text{F}$	ISO data
Deflection Temperature at 1.8 MPa (264 psi)	212 $^{\circ}\text{C}$	414 $^{\circ}\text{F}$	ISO data
	212 $^{\circ}\text{C}$	414 $^{\circ}\text{F}$	ASTM Data
Flammability, UL94	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	

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

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