

BASF Capron® 5233G HS BK-102 33% Glass-Filled Nylon 66 (Dry) (discontinued **)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66 , 30% Glass Fiber Filled

Material Notes:

Capron 5233G HS BK-102 is a 35% glass reinforced, heat stabilized, pigmented black nylon 6,6 injection molding compound offering excellent strength, rigidity, stiffness, creep resistance, and dimensional stability. This balance of engineering properties combined with excellent processability makes it ideal in applications replacing metal. It maintains excellent chemical resistance to greases, oils and hydrocarbons. It is also available in natural and pigmented versions. Capron 5233G HS BK-102 is generally recommended for applications such as window locks, valve bodies, door and window hardware, connectors, switch components, relay parts, terminal blocks, power tool components, gears and automotive 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: 290-315 degC (555-600 degF). Mold Temperature: 80-95 degC (176-203 degF). Injection and Packing Pressure: 35-125 bar (500-1500psi) A mold temperature of 80-95degC (176-203 degF) is recommended, but temperatures of as low as 45 degC (113degF) and as high as 105 degC (221 degF) can be used where applicable. 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-5233G-HS-BK-102-33-Glass-Filled-Nylon-66-Dry-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.187 g/cc	0.04288 lb/in ³	Melt Density
	1.39 g/cc	0.0502 lb/in ³	ISO data
Water Absorption	0.80 %	0.80 %	24 hrs; ISO data
Moisture Absorption at Equilibrium	1.6 %	1.6 %	50% RH; 23°C; ISO data
Water Absorption at Saturation	5.6 %	5.6 %	in water; 23°C; ISO data
Viscosity Measurement	59	59	Formic Acid Viscosity; ISO data
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ASTM and ISO value
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	ISO Data

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	200 MPa	29000 psi	ASTM value at 5mm/min.

Mechanical Properties	Metric	English	Comments
Elongation at Break	3.0 %	3.0 %	ISO, 5 mm/minl
	3.0 %	3.0 %	ASTM, 5 mm/minl
Tensile Modulus	10.4 GPa	1510 ksi	ISO test
Flexural Modulus	8.80 GPa	1280 ksi	ISO Value
	9.69 GPa	1410 ksi	ASTM Value
Poissons Ratio	0.35	0.35	ISO data
Shear Modulus	3.90 GPa	566 ksi	calculated

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	23.0 $\mu\text{m}/\text{m}\cdot\text{C}$	12.8 $\mu\text{in}/\text{in}\cdot\text{F}$	ISO data
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	70.0 $\mu\text{m}/\text{m}\cdot\text{C}$	38.9 $\mu\text{in}/\text{in}\cdot\text{F}$	ISO data
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
Specific Heat Capacity	2.35 J/g- $^{\circ}\text{C}$	0.562 BTU/lb- $^{\circ}\text{F}$	Melt value
Thermal Conductivity	0.331 W/m-K	2.30 BTU-in/hr-ft 2 - $^{\circ}\text{F}$	Melt
Melting Point	260 $^{\circ}\text{C}$	500 $^{\circ}\text{F}$	ASTM and ISO test
Deflection Temperature at 0.46 MPa (66 psi)	260 $^{\circ}\text{C}$	500 $^{\circ}\text{F}$	ISO data
Deflection Temperature at 1.8 MPa (264 psi)	245 $^{\circ}\text{C}$	473 $^{\circ}\text{F}$	ISO data
	251 $^{\circ}\text{C}$	484 $^{\circ}\text{F}$	ASTM Data
Flammability, UL94	HB	HB	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	HB	HB	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Dielectric Strength	30.0 kV/mm	762 kV/in	ISO data

Processing Properties	Metric	English	Comments
Processing Temperature	290 $^{\circ}\text{C}$	554 $^{\circ}\text{F}$	See Materials Notes

Processing Properties	Metric	English	Comments <small>is Notes</small>
Drying Temperature	85.0 °C	185 °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