

## BASF Capron® BG50XFI Impact Modified Nylon 6 (Dry) (discontinued \*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Impact Grade

### Material Notes:

Capron BG50XFI is an injection molding type 6 nylon graft copolymer with superior impact resistance and flow especially for thinner walled parts and long flow lengths. It is also available in natural and pigmented versions. Copolymerization results in varying levels of toughness and flexibility combined with excellent thermal and chemical properties. Exhibits higher impact performance than that of conventional nylon homopolymers while maintaining good strength, chemical resistance and stiffness. Capron BG50XFI is generally recommended for applications such as cellular phone housings, handheld device, caps, furniture rails, escutcheons, covers, mower decks and tool. Data provided by Allied Signal. Processing: Max. water content 0.25%. 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: 240-280 degC (464-536 degF). Mold Temperature: 80-95 degC (176-203 degF). Injection and Packing Pressure: 35-125 bar (500-1500psi) A mold temperature of 80-95 degC (176-203 degF) is recommended, but temperatures of as low as 10 degC (50 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. Fast fill rates are recommended to insure uniform melt delivery to the cavity and prevent premature freezing. 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-BG50XFI-Impact-Modified-Nylon-6-Dry-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_BASF-Capron-BG50XFI-Impact-Modified-Nylon-6-Dry-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	0.938 g/cc	0.0339 lb/in <sup>3</sup>	Melt Density
	1.10 g/cc	0.0397 lb/in <sup>3</sup>	ISO data
Moisture Absorption at Equilibrium	2.4 %	2.4 %	50% RH; 23°C; ISO data
Water Absorption at Saturation	8.6 %	8.6 %	in water; 23°C; ISO data

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	69.0 MPa	10000 psi	ISO value at 50 mm/min.
	70.0 MPa	10200 psi	ASTM value at 50 mm/min.
Elongation at Break	>= 50 %	>= 50 %	Nominal
	70 %	70 %	Nominal
Flexural Yield Strength	95.0 MPa	13800 psi	ASTM Data
Flexural Modulus	2.39 GPa	347 ksi	ASTM Data
Poissons Ratio	0.35	0.35	ISO data

Thermal Properties	Metric	English	Comments
Specific Heat Capacity	3.89 J/g-°C	0.930 BTU/lb-°F	Melt value
Thermal Conductivity	0.168 W/m-K	1.17 BTU-in/hr-ft²-°F	Melt
Melting Point	220 °C	428 °F	ASTM and ISO test
Deflection Temperature at 1.8 MPa (264 psi)	60.0 °C	140 °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	

Processing Properties	Metric	English	Comments
Drying Temperature	85.0 °C	185 °F	See Materials Notes

## Contact Songhan Plastic Technology Co.,Ltd.

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