

## BASF Capron® 8200 HS BK-102 Nylon 6 (Dry) (discontinued \*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Heat Stabilized

### Material Notes:

Capron 8200 HS BK-102 is a medium viscosity, heat stabilized, pigmented black, nylon 6 injection molding homopolymer exhibiting resistance to sink-mark formation in thick section, and improved toughness over conventional lower viscosity grades. It possesses the combination of strength, stiffness, and toughness properties as well as excellent chemical and abrasion resistance. Capron 8200 HS BK-102 is generally recommended for applications such as textile components, filter housings, hinges, gears, medical parts, cattle ear tags, wiring devices, plugs, receptacles, gears and connectors. 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-8200-HS-BK-102-Nylon-6-Dry-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_BASF-Capron-8200-HS-BK-102-Nylon-6-Dry-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in <sup>3</sup>	ISO data
Water Absorption	1.6 %	1.6 %	24 hrs; ISO data
Moisture Absorption at Equilibrium	2.7 %	2.7 %	50% RH; 23°C; ISO data
Water Absorption at Saturation	9.5 %	9.5 %	in water; 23°C; ISO data
Viscosity Measurement	64	64	Formic Acid Viscosity; ISO data
Linear Mold Shrinkage	0.012 cm/cm	0.012 in/in	ASTM Data MD

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	80.0 MPa	11600 psi	50 mm/min; Same value from ASTM and ISO test.
Elongation at Break	>= 50 %	>= 50 %	Nominal
	55 %	55 %	Nominal
Elongation at Yield	4.0 %	4.0 %	ASTM Value at 50 mm/min.
	4.0 %	4.0 %	ISO Value at 50 mm/min.
Flexural Modulus	2.58 GPa	374 ksi	ISO data

Mechanical Properties	Metric	English	Comments
Poissons Ratio	0.35	0.35	ISO data
Charpy Impact, Notched	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	ISO Data
	0.380 J/cm <sup>2</sup>	1.81 ft-lb/in <sup>2</sup>	ISO data
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
Melting Point	220 °C	428 °F	ASTM and ISO test
Deflection Temperature at 0.46 MPa (66 psi)	175 °C	347 °F	ISO data
Deflection Temperature at 1.8 MPa (264 psi)	56.0 °C	133 °F	ISO Data
Flammability, UL94	V-2	V-2	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	V-2	V-2	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Processing Properties	Metric	English	Comments
Processing Temperature	260 °C	500 °F	See Materials Notes
Mold Temperature	80.0 °C	176 °F	See Materials Notes
Drying Temperature	85.0 °C	185 °F	See Materials Notes

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