BASF Capron® 8202C HS Nylon 6 (Dry) (discontinued **)

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

Material Notes:

Capron 8202C HS is a heat stabilized, low viscosity, polyamide 6 injection molding homopolymer possessing a modified crystalline structure for increased property performance and faster cycles. It is also available in non-heat stabilized (Capron 8202C) and/or pigmented versions.Capron 8202C HS is generally recommended for applications such as gears, valves, fittings, insulators, bushings, slides, window hardware, wiring devices, textile components and furniture casters. ASTM Callout PA242.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-8202C-HS-Nylon-6-Dry-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in³	ISO data
Water Absorption	1.6 %	1.6 %	24 hrs; ISO data
Moisture Absorption at Equilibrium	2.6 %	2.6 %	50% RH; 23°C; ISO data
Water Absorption at Saturation	9.3 %	9.3 %	in water; 23°C; ISO data
Viscosity Measurement	48	48	Formic Acid Viscosity; ISO data
Linear Mold Shrinkage	0.0090 cm/cm	0.0090 in/in	ASTM data MD
	0.012 cm/cm	0.012 in/in	ISO data
Linear Mold Shrinkage, Transverse	0.015 cm/cm	0.015 in/in	ISO Data

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	90.0 MPa	13100 psi	ASTM data at 5 mm/min.
Tensile Strength, Yield	90.0 MPa	13100 psi	50 mm/min; Same value from ASTM and ISO test.
Elongation at Break	10 %	10 %	Nominal
	12 %	12 %	Nominal

Mechanical Properties	Metric	English	Comments
Elongation at Yield	4.0 %	4.0 %	ASTM Value at 50 mm/min.
	4.0 %	4.0 %	ISO Value at 50 mm/min.
Tensile Modulus	3.76 GPa	545 ksi	same value from ASTM and ISO test.
Flexural Yield Strength	110 MPa	16000 psi	ASTM Data
Flexural Modulus	3.17 GPa	460 ksi	ASTM Data
Poissons Ratio	0.35	0.35	ISO data
Shear Modulus	1.40 GPa	203 ksi	calculated
Coefficient of Friction	0.16	0.16	vs. steel.
	0.33	0.33	vs. polymer
Coefficient of Friction, Static	0.24	0.24	vs. steel.
	0.53	0.53	vs. polymer

Thermal Properties	Metric	English	Comments
CTE, linear	81.0 µm/m-°C @Temperature 20.0 °C	45.0 µin/in-°F @Temperature 68.0 °F	ASTM data
Melting Point	220 °C	428 °F	ASTM and ISO test
Deflection Temperature at 0.46 MPa (66 psi)	190 °C	374 °F	Value for both ASTM and ISO data.
Deflection Temperature at 1.8 MPa (264 psi)	75.0 °C	167 °F	ASTM Data
	75.0 °C	167 °F	ISO data
Flammability, UL94	V-2 @Thickness 0.700 mm	V-2 @Thickness 0.0276 in	
	V-2 @Thickness 3.00 mm	V-2 @Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	ISO data
Dielectric Strength	30.0 kV/mm	762 kV/in	ISO data
Comparative Tracking Index	600 V	600 V	ISO data

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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