

BASF Capron® 8200 NL Nylon 6 (DAM) (discontinued **)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Unreinforced

Material Notes:

Information provided by BASF Corporation. 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-NL-Nylon-6-DAM-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Absorption	1.6 %	1.6 %	24 hr.; ISO 62
	9.5 %	9.5 %	ISO 62
Moisture Absorption at Equilibrium	2.7 %	2.7 %	23°C/50% R.H.; ISO 62
Viscosity Measurement	64	64	Formic Acid; ASTM D789
Linear Mold Shrinkage	0.012 cm/cm	0.012 in/in	MD; ASTM Test

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	119	119	ASTM D785
Tensile Strength at Break	75.0 MPa	10900 psi	0.2 in/min; ASTM D638
Tensile Strength, Yield	79.0 MPa	11500 psi	50 mm/min; ISO 527
	79.0 MPa	11500 psi	2 in/min; ASTM D638
	25.0 MPa	3630 psi	ASTM D638
	@Temperature 120 °C	@Temperature 248 °F	
	25.0 MPa	3630 psi	ISO 527
	@Temperature 120 °C	@Temperature 248 °F	
	35.0 MPa	5080 psi	ASTM D638
	@Temperature 80.0 °C	@Temperature 176 °F	
	35.0 MPa	5080 psi	ISO 527
	@Temperature 80.0 °C	@Temperature 176 °F	
	125 MPa	18100 psi	ASTM D638
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	125 MPa	18100 psi	

Mechanical Properties	Metric @ Temperature -40.0 °C	English @ Temperature -40.0 °F	ISO 527 Comments
Elongation at Break	>= 50 %	>= 50 %	50 mm/min; Nominal; ISO 527
	55 %	55 %	2 in/min; ASTM D638
Elongation at Yield	4.0 %	4.0 %	50 mm/min; ISO 527
	4.0 %	4.0 %	2 in/min; ASTM D638
Modulus of Elasticity	0.360 GPa @Temperature 120 °C	52.2 ksi @Temperature 248 °F	ISO 527
	0.485 GPa @Temperature 80.0 °C	70.3 ksi @Temperature 176 °F	ISO 527
Tensile Modulus	3.10 GPa	450 ksi	1 mm/min; ISO 527
Flexural Strength	110 MPa	16000 psi	ASTM D790
	20.0 MPa @Temperature 120 °C	2900 psi @Temperature 248 °F	ASTM D790
	20.0 MPa @Temperature 93.0 °C	2900 psi @Temperature 199 °F	ASTM D790
	30.0 MPa @Temperature 65.0 °C	4350 psi @Temperature 149 °F	ASTM D790
	170 MPa @Temperature -40.0 °C	24700 psi @Temperature -40.0 °F	ASTM D790
	2.83 GPa	410 ksi	ASTM D790
Flexural Modulus	0.305 GPa @Temperature 120 °C	44.2 ksi @Temperature 248 °F	ASTM D790
	0.350 GPa @Temperature 93.0 °C	50.8 ksi @Temperature 199 °F	ASTM D790
	0.500 GPa @Temperature 65.0 °C	72.5 ksi @Temperature 149 °F	ASTM D790
	3.01 GPa @Temperature -40.0 °C	437 ksi @Temperature -40.0 °F	ASTM D790
	0.600 J/cm	1.12 ft-lb/in	ASTM D256
	0.500 J/cm	0.937 ft-lb/in	

Mechanical Properties	Metric	English	ASTM D256 Comments
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Thermal Properties	Metric	English	Comments
CTE, linear	83.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	46.1 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ASTM E831
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Melting Point	220 $^\circ\text{C}$	428 $^\circ\text{F}$	10 K/min
	220 $^\circ\text{C}$	428 $^\circ\text{F}$	ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	178 $^\circ\text{C}$	352 $^\circ\text{F}$	ISO 75
	178 $^\circ\text{C}$	352 $^\circ\text{F}$	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	60.0 $^\circ\text{C}$	140 $^\circ\text{F}$	ISO 75
	65.0 $^\circ\text{C}$	149 $^\circ\text{F}$	ASTM D648

Descriptive Properties	Value	Comments
Additive	Unfilled	
Color	Natural	
Commercial Status (March 2007)	Active America	
Form	Pellets	
Impact Modified	No	
Injection molding	Processable	
Primary Processing Technique	Film Extrusion	

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