

BASF Ultramid® 8202 PA6 (Dry)

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

Material Notes:

Ultramid 8202 is a low viscosity, general purpose polyamide 6 injection molding homopolymer exhibiting excellent melt fluidity for filling thin sections. It is also available in heat stabilized (Ultramid 8202 HS) and/or pigmented versions. It combines good strength, stiffness and toughness as well as excellent heat, chemical and abrasion resistance.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultramid-8202-PA6-Dry.php

Physical Properties	Metric	English	Comments
Density	0.932 g/cc	0.0337 lb/in ³	Melt; ISO 1183
	1.13 g/cc	0.0408 lb/in ³	ISO 1183
Water Absorption	1.6 %	1.6 %	24 hour; ISO Test
	9.5 %	9.5 %	ISO 62
Moisture Absorption at Equilibrium	2.7 %	2.7 %	23°C/50% R.H.; ISO 62
Relative Viscosity	2.6 cP	2.6 cP	ISO Test; 96 % SAV
Viscosity Measurement	48	48	Formic Acid
Linear Mold Shrinkage	0.012 cm/cm	0.012 in/in	ASTM Data; MD

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	119	119	ASTM Test
Tensile Strength at Break	75.0 MPa	10900 psi	0.2 in/min; ASTM Test
Tensile Strength, Yield	78.0 MPa	11300 psi	50mm/min; ISO 527
	79.0 MPa	11500 psi	2 in/min; ASTM Test
	25.0 MPa	3630 psi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	25.0 MPa	3630 psi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	35.0 MPa	5080 psi	ASTM Test
	@Temperature 80.0 °C	@Temperature 176 °F	
	35.0 MPa	5080 psi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	

Mechanical Properties	Metric 126 MPa	English 18300 psi	Comments
	@Temperature -40.0 °C	@Temperature -40.0 °F	ASTM Test
	126 MPa	18300 psi	ISO Data
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Break	25 %	25 %	50mm/min, Nominal strain; ISO 527
	55 %	55 %	2 in/min; ASTM Test
Elongation at Yield	4.0 %	4.0 %	50mm/min; ISO 527
	4.0 %	4.0 %	2 in/min; ASTM Test
	36 %	36 %	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	36 %	36 %	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	42 %	42 %	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
	42 %	42 %	ASTM Test
	@Temperature 80.0 °C	@Temperature 176 °F	
Tensile Modulus	2.70 GPa	392 ksi	1mm/min; ISO 527
	0.360 GPa	52.2 ksi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	0.485 GPa	70.3 ksi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
Flexural Strength	85.0 MPa	12300 psi	ISO Data
	108 MPa	15700 psi	ASTM Test
	17.0 MPa	2470 psi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	20.0 MPa	2900 psi	ASTM Test
	@Temperature 93.0 °C	@Temperature 199 °F	
	30.0 MPa	4350 psi	ASTM Test
	@Temperature 65.0 °C	@Temperature 149 °F	
	170 MPa	24700 psi	

Mechanical Properties	Metric @ Temperature -40.0 °C	English @ Temperature -40.0 °F	ASTM Test Comments
Flexural Modulus	2.40 GPa	348 ksi	ISO Data
	2.83 GPa	410 ksi	ASTM Test
	0.305 GPa	44.2 ksi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	0.350 GPa	50.8 ksi	ASTM Test
	@Temperature 93.0 °C	@Temperature 199 °F	
	0.500 GPa	72.5 ksi	ASTM Test
	@Temperature 65.0 °C	@Temperature 149 °F	
Izod Impact, Notched	0.480 J/cm	0.899 ft-lb/in	ASTM Test
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.580 J/cm	1.09 ft-lb/in	ASTM Test
	@Thickness 3.17 mm	@Thickness 0.125 in	
Charpy Impact Unnotched	NB	NB	ISO 179
	5.10 J/cm ²	24.3 ft-lb/in ²	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.350 J/cm ²	1.67 ft-lb/in ²	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	83.0 µm/m-°C	46.1 µin/in-°F	ASTM Test
	@Temperature -30.0 - 30.0 °C	@Temperature -22.0 - 86.0 °F	
Specific Heat Capacity	3.728 J/g-°C	0.8910 BTU/lb-°F	Melt
Thermal Conductivity	0.264 W/m-K	1.83 BTU-in/hr-ft ² -°F	Melt
Melting Point	220 °C	428 °F	10 K/min
	220 °C	428 °F	ASTM Test
Deflection Temperature at 0.46 MPa (66 psi)	150 °C	302 °F	ISO 75
	178 °C	352 °F	ASTM Test
Deflection Temperature at 1.8 MPa (264 psi)	60.0 °C	140 °F	ISO 75
	65.0 °C	149 °F	ASTM Test

Thermal Properties	Metric	English	Comments
Flammability, UL94	@Thickness 0.700 mm	@Thickness 0.0276 in	
	V-2	V-2	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00\text{e}+13$ ohm-cm	$\geq 1.00\text{e}+13$ ohm-cm	IEC 60093
Dielectric Constant	3.3	3.3	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
	3.5	3.5	
	@Frequency 100 Hz	@Frequency 100 Hz	IEC 60250
	4.1	4.1	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	ASTM Data
	4.3	4.3	
	@Frequency 1e+9 Hz	@Frequency 1e+9 Hz	ASTM Data
Dielectric Strength	37.0 kV/mm	940 kV/in	IEC 60243-1
Dissipation Factor	0.010	0.010	
	@Frequency 1e+9 Hz	@Frequency 1e+9 Hz	ASTM Data
	0.010	0.010	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	ASTM Data
	0.010	0.010	
	@Frequency 100 Hz	@Frequency 100 Hz	IEC 60250
	0.020	0.020	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	260 °C	500 °F	Injection molding
Mold Temperature	80.0 °C	176 °F	Injection molding

Descriptive Properties	Value	Comments
Color	Natural	
Commercial Status	Active America	
Form	Pellets	
Impact Modified	No	
Primary Processing Technique	Injection Molding	
Processing	Injection Molding	
UL.UL-C	Yes	

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