

Eurostar Staramide AST03 PA66, Impact Modified, Injection Molded

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Impact Grade

Material Notes:

AST03 is an Impact Modified Polyamide 66 Injection Molding Resin Information provided by Polymer Technology & Services, the North American exclusive supplier.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Eurostar-Staramide-AST03-PA66-Impact-Modified-Injection-Molded.php

Physical Properties	Metric	English	Comments
Density	1.08 g/cc	0.0390 lb/in ³	ISO 1183
Moisture Absorption	1.60 % @Temperature 23.0 °C	1.60 % @Temperature 73.4 °F	50% RH; ISO 62
Water Absorption at Saturation	6.0 % @Temperature 23.0 °C	6.0 % @Temperature 73.4 °F	ISO 62-1
Linear Mold Shrinkage, Flow	0.013 - 0.020 cm/cm	0.013 - 0.020 in/in	on Tensile Bar; ISO 294

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	108	108	ISO 2039-2
Tensile Strength, Yield	65.0 MPa	9430 psi	50 mm/min; ISO 527
Elongation at Break	4.6 %	4.6 %	50 mm/min; ISO 527
Elongation at Yield	4.6 %	4.6 %	50 mm/min; ISO 527
Tensile Modulus	2.50 GPa	363 ksi	1 mm/min; ISO 527
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Flexural Modulus	2.70 GPa	392 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	35.0 kJ/m ² @Temperature -40.0 °C	16.7 ft-lb/in ² @Temperature -40.0 °F	Edgew 80x10x4 sp=62; ISO 180/1A
	45.0 kJ/m ² @Temperature -20.0 °C	21.4 ft-lb/in ² @Temperature -4.00 °F	Edgew 80x10x4 sp=62; ISO 180/1A
	55.0 kJ/m ² @Temperature 23.0 °C	26.2 ft-lb/in ² @Temperature 73.4 °F	Edgew 80x10x4 sp=62; ISO 180/1A
Charpy Impact Unnotched	>= 10.0 J/cm ²	>= 47.6 ft-lb/in ²	Edgew 80x10x4 sp=62; ISO 179/1eU

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	95.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	52.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-2
	@Temperature 23.0 - 60.0 $^{\circ}\text{C}$	@Temperature 73.4 - 140 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	125 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	69.4 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-2
	@Temperature 23.0 - 60.0 $^{\circ}\text{C}$	@Temperature 73.4 - 140 $^{\circ}\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	210 $^{\circ}\text{C}$	410 $^{\circ}\text{F}$	Edgew 120x10x4, sp=100 mm; ISO 75/Bf
Deflection Temperature at 1.8 MPa (264 psi)	80.0 $^{\circ}\text{C}$	176 $^{\circ}\text{F}$	Edgew 120x10x4, sp=100 mm; ISO 75/Af
Vicat Softening Point	220 $^{\circ}\text{C}$	428 $^{\circ}\text{F}$	B/120; ISO 306
	221 $^{\circ}\text{C}$	430 $^{\circ}\text{F}$	B/50; ISO 306
UL RTI, Electrical	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	
UL RTI, Mechanical with Impact	@Thickness 1.50 mm	@Thickness 0.0591 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical without Impact	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	
UL RTI, Mechanical without Impact	@Thickness 1.50 mm	@Thickness 0.0591 in	
	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	
	@Thickness 3.00 mm	@Thickness 0.118 in	
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 0.750 mm	@Thickness 0.0295 in	

Thermal Properties	Metric	English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	IEC 60695-11-10
	HB	HB	IEC 60695-11-10
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+16 ohm-cm	>= 1.00e+16 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+16 ohm	>= 1.00e+16 ohm	ROA; IEC 60093
Dielectric Constant	2.7	2.7	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Constant	2.9	2.9	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	16.0 kV/mm	406 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0067	0.0067	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dissipation Factor	0.015	0.015	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112
	600 V	600 V	M; IEC 60112

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	250 - 260 °C	482 - 500 °F	Zone 1
Middle Barrel Temperature	265 - 275 °C	509 - 527 °F	Zone 2
Front Barrel Temperature	265 - 275 °C	509 - 527 °F	Zone 3
Melt Temperature	265 - 275 °C	509 - 527 °F	
Mold Temperature	60.0 - 80.0 °C	140 - 176 °F	
Drying Temperature	75.0 - 85.0 °C	167 - 185 °F	
Dry Time	4.00 - 6.00 hour	4.00 - 6.00 hour	

Processing Properties	Metric	English	Comments
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