

Mitsui Arlenâ„ç AE4200N Modified Nylon 6T, for Tribolic Applications, Flame Retardant (COND)

Category : Polymer , Thermoplastic , Nylon

Material Notes:

ARLENâ„ç is a heat resistant, modified polyamide 6T developed by Mitsui Chemicals, Inc. With a high melting point (320Â°C) and a rigidity level comparable to super engineering plastics, it possesses strong dimensional stability and chemical resistance. In addition, the effect of water absorption, which is a traditional weakness of polyamides, has been reduced to a minimum. Applications: Light-load tribological application parts of office automation equipment Information provided by Mitsui.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Mitsui-Arlen-AE4200N-Modified-Nylon-6T-for-Tribolic-Applications-Flame-Retardant-COND.php

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in ³	ASTM D792
Water Absorption	0.3 %	0.3 %	24 hours in 23Â°C water; ASTM D570
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	2.0 %	2.0 %	24 hours in 100Â°C water; ASTM D570
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Linear Mold Shrinkage, Flow	0.0080 cm/cm	0.0080 in/in	ASTM D955
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	Vertical Direction; ASTM D955
	@Thickness 2.00 mm	@Thickness 0.0787 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	60.0 MPa	8700 psi	ASTM D638
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Elongation at Break	4.0 %	4.0 %	Measured between the chucks, 2mmt; ASTM D638
Flexural Strength	110 MPa	16000 psi	ASTM D790
Flexural Modulus	2.70 GPa	392 ksi	ASTM D790
Izod Impact, Notched	0.800 J/cm	1.50 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	67.0 Âµm/m-Â°C	37.2 Âµin/in-Â°F	Vertical Direction; ASTM D696
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	

Thermal Properties	Metric US Unit $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	English $36.1 \mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	Comments
CTE, linear, Parallel to Flow	@Temperature 20.0 Å°C	@Temperature 68.0 Å°F	ASTM D696
Melting Point	320 Å°C	608 Å°F	
Deflection Temperature at 1.8 MPa (264 psi)	145 Å°C	293 Å°F	ASTM D648
Glass Transition Temp, Tg	125 Å°C	257 Å°F	
Flammability, UL94	V-0	V-0	

Optical Properties	Metric	English	Comments
Transmission, Visible	92 %	92 %	

Processing Properties	Metric	English	Comments
Feed Temperature	50.0 - 90.0 Å°C	122 - 194 Å°F	Hopper Bottom Temp for Mechanical and Structural Standard Molding
	50.0 - 90.0 Å°C	122 - 194 Å°F	Hopper Bottom for Electronic and Electric Standard Molding
Nozzle Temperature	315 - 335 Å°C	599 - 635 Å°F	NH Cylinder Temp for Electronic and Electric Standard Molding
	325 - 340 Å°C	617 - 644 Å°F	NH Cylinder Temp for Mechanical and Structural Standard Molding
Zone 1	300 - 325 Å°C	572 - 617 Å°F	C1 Cylinder Temp for Electronic and Electric Standard Molding
	315 - 330 Å°C	599 - 626 Å°F	C1 Cylinder Temp for Mechanical and Structural Standard Molding
Zone 2	315 - 335 Å°C	599 - 635 Å°F	C2 Cylinder Temp for Electronic and Electric Standard Molding
	320 - 335 Å°C	608 - 635 Å°F	C2 Cylinder Temp for Mechanical and Structural Standard Molding
Zone 3	320 - 335 Å°C	608 - 635 Å°F	C3 Cylinder Temp for Electronic and Electric Standard Molding
	325 - 340 Å°C	617 - 644 Å°F	C3 Cylinder Temp for Mechanical and Structural Standard Molding
Mold Temperature	50.0 - 90.0 Å°C	122 - 194 Å°F	for Mechanical and Structural Standard Molding
	90.0 - 140 Å°C	194 - 284 Å°F	for Electronic and Electric Standard Molding
Screw Speed	150 rpm	150 rpm	for Electronic and Electric Standard Molding
	150 rpm	150 rpm	for Mechanical and Structural

Processing Properties	Metric	English	Standard Molding Comments
Descriptive Properties	Value	Comments	
Injection Pressure	Medium	Electronic and Electric Standard Molding	
	Medium	Mechanical and Structural Standard Molding	
Injection Speed	Medium	Electronic and Electric Standard Molding	
	Medium	Mechanical and Structural Standard Molding	

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