

Mitsui Arlenâ, ¢ C230 30% Glass Fiber-Reinforced Modified Nylon 6T (DAM)

Category: Polymer, Thermoplastic, Nylon

Material Notes:

ARLENâ,¢ is a heat resistant, modified polyamide 6T developed by Mitsui Chemicals, Inc. With a high melting point (320°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:

Connectors Jacks Switches Power supply terminals Various cases Information provided by Mitsui.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Mitsui-Arlen-C230-30-Glass-Fiber-Reinforced-Modified-Nylon-6T-DAM.php

Physical Properties	Metric	English	Comments	
Density	1.42 g/cc	0.0513 lb/in³	ASTM D792	
Filler Content	30 %	30 %		
Water Absorption	0.3 %	0.3 %	24 hours in 23°C water; ASTM D570	
water Absorption	@Thickness 2.00 mm	@Thickness 0.0787 in	24 Hodis III 25A O Water, ASTM D5TO	
	3.0 %	3.0 %	24 hours in 100°C water; ASTM	
	@Thickness 2.00 mm	@Thickness 0.0787 in	D570	
Linear Mold Shrinkage, Flow	0.0050 cm/cm	0.0050 in/in	ASTM D955	
Linear Word Similitage, Flow	@Thickness 2.00 mm	@Thickness 0.0787 in	ASTIVIDESS	
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	Vertical Direction; ASTM D955	
	@Thickness 2.00 mm	@Thickness 0.0787 in	vertical Direction, ASTM D955	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	110	110	ASTM D785
Tensile Strength at Break	170 MPa	24700 psi	ASTM D638
Elongation at Break	3.0 %	3.0 %	Measured between the chucks; ASTM D638
Flexural Strength	260 MPa	37700 psi	ASTM D790
Flexural Modulus	10.0 GPa	1450 ksi	ASTM D790
Izod Impact, Notched	0.800 J/cm	1.50 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
	50.0 Âμm/m-°C	27.8 µin/in-°F	
CTE, linear			Vertical Direction; ASTM D696



Thermal Properties	@Temperature 20.0 Metric	@Temperature 68.0 ŰF English	Comments
CTE, linear, Parallel to Flow	24.0 Âμm/m-°C @Temperature 20.0 °C	13.3 µin/in-°F @Temperature 68.0 °F	ASTM D696
Melting Point	310 °C	590 °F	
Deflection Temperature at 1.8 MPa (264 psi)	300 °C	572 °F	ASTM D648
Glass Transition Temp, Tg	85.0 °C	185 °F	
Flammability, UL94	НВ	НВ	

Electrical Properties	Metric English		Comments	
Volume Resistivity	1.00e+16 ohm-cm 1.00e+16 ohm-cm		ASTM D257	
Dielectric Constant	4.5	4.5	ASTM D150	
Dielectric Constant	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	ASTRIBUTSO	
Dielectric Strength	28.0 kV/mm	711 kV/in	ASTM D149	
Dissipation Factor	0.018	0.018	ASTM D150	
Dissipation Factor	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	ASTIM DISU	

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



Processing Properties	Metric A°C	English ⁴⁴ ŰF	C3 Cylinder Temp for Mechanical and Comments Standard Molding
Mold Temperature	90.0 - 140 °C	194 - 284 °F	for Electronic and Electric Standard Molding
	90.0 - 140 °C	194 - 284 °F	for Mechanical and Structural Standard Molding
Screw Speed	150 rpm	150 rpm	for Mechanical and Structural Standard Molding
	150 rpm	150 rpm	for Electronic and Electric Standard Molding

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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