

ARLEN™ AE4200

Mitsui Chemicals America, Inc. - Polyamide 6T

General Information

General	
Material Status	• Commercial: Active
Availability	• North America
Forms	• Pellets

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.10	--		ASTM D792
Molding Shrinkage - Flow (0.0787 in)	9.0E-3	--	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.0787 in)	9.0E-3	--	in/in	ASTM D955
Water Absorption				ASTM D570
24 hr, 73°F	0.40	--	%	
24 hr, 212°F	2.6	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Strength (0.0787 in)	11600	10200	psi	ASTM D638
Tensile Elongation (Break, 0.0787 in)	50	50	%	ASTM D638
Flexural Modulus	348000	319000	psi	ASTM D790
Flexural Strength	16000	14500	psi	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact	3.7	4.1	ft·lb/in	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness				ASTM D785
M-Scale	65	--		
R-Scale	--	110		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	275	--	°F	ASTM D648
Glass Transition Temperature	257	--	°F	DSC
Melting Temperature	608	--	°F	
CLTE - Flow	4.4E-5	--	in/in/°F	ASTM D696
CLTE - Transverse	4.6E-5	--	in/in/°F	ASTM D696
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+16	--	ohms·cm	ASTM D257
Dielectric Strength	580	--	V/mil	ASTM D149
Dielectric Constant (1 MHz)	3.30	--		ASTM D150
Dissipation Factor (1 MHz)	0.018	--		ASTM D150
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating	HB	--		UL 94

Processing Information

Injection	Dry Unit
Drying Temperature	230 °F
Drying Time	2.0 to 6.0 hr
Hopper Temperature	122 to 194 °F
Rear Temperature	599 to 626 °F
Middle Temperature	608 to 635 °F
Front Temperature	617 to 644 °F
Nozzle Temperature	617 to 644 °F
Mold Temperature	122 to 194 °F



Injection Rate	Moderate
Screw Speed	150 rpm
Injection Notes	
Injection Pressure: Medium Pressure	

Notes

¹ Typical properties: these are not to be construed as specifications.

