

ARLEN™ AE4200N

Mitsui Chemicals America, Inc. - *Polyamide 6T*
General Information

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

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.40	--		ASTM D792
Molding Shrinkage - Flow (0.0787 in)	8.0E-3	--	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.0787 in)	0.010	--	in/in	ASTM D955
Water Absorption				ASTM D570
24 hr, 73°F	0.30	--	%	
24 hr, 212°F	2.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Strength (0.0787 in)	10200	8700	psi	ASTM D638
Tensile Elongation (Break, 0.0787 in)	4.0	4.0	%	ASTM D638
Flexural Modulus	435000	392000	psi	ASTM D790
Flexural Strength	17400	16000	psi	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact	1.3	1.5	ft-lb/in	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (M-Scale)	80	--		ASTM D785
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	293	--	°F	ASTM D648
Glass Transition Temperature	257	--	°F	DSC
Melting Temperature	608	--	°F	
CLTE - Flow	3.6E-5	--	in/in/°F	ASTM D696
CLTE - Transverse	3.7E-5	--	in/in/°F	ASTM D696
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	--	ohms·cm	ASTM D257
Dielectric Strength	790	--	V/mil	ASTM D149
Dielectric Constant (1 MHz)	3.30	--		ASTM D150
Dissipation Factor (1 MHz)	0.014	--		ASTM D150
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating	V-0	--		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.

