

Vydyne® AST44

Ascend Performance Materials Operations LLC - *Polyamide 66*

General Information

Product Description

Vydyne AST44 is an impact modified PA66 for injection molded applications.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Additive	• Impact Modifier • Mold Release
Features	• Impact Modified
Agency Ratings	• ISO 1043 PA66 I
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID	• PA66-I

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.07	g/cm ³	ISO 1183
Water Absorption (Saturation, 73°F)	5.5	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.5	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	276000	psi	ISO 527-1
Tensile Stress (Yield, 73°F)	7250	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.6	%	ISO 527-2
Tensile Strain (Break, 73°F)	> 50	%	ISO 527-2
Flexural Modulus (73°F)	276000	psi	ISO 178
Flexural Stress (73°F)	10400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	31	ft·lb/in ²	
73°F	38	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	48	ft·lb/in ²	
73°F	48	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180/1A
-40°F	26	ft·lb/in ²	
73°F	38	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (73 to 131°F, 0.0787 in)	5.6E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	6.7E-5	in/in/°F	ISO 11359-2
RTI Elec			UL 746B
0.030 in	149	°F	
0.06 in	149	°F	
0.12 in	149	°F	
RTI Imp			UL 746B
0.030 in	149	°F	
0.06 in	149	°F	
0.12 in	149	°F	
RTI Str			UL 746B



0.030 in	149 °F	
0.06 in	149 °F	
0.12 in	149 °F	
Electrical	Nominal Value	Unit Test Method
Volume Resistivity (0.0394 in)	1.0E+16 ohms·cm	IEC 60093
Comparative Tracking Index (0.118 in)	550 V	IEC 60112
Flammability	Nominal Value	Unit Test Method
Flame Rating		UL 94
0.030 in	HB	
0.06 in	HB	
0.12 in	HB	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	167 to 185	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	482 to 500	°F
Middle Temperature	509 to 527	°F
Front Temperature	509 to 527	°F
Processing (Melt) Temp	509 to 527	°F
Mold Temperature	140 to 176	°F

Notes

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

