POLYLAC® PA-747

CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Tuesday, January 12, 2016

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• ASTM D4673 ABS0120 B43420 Color: Black		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03		ASTM D792
Density (73°F)	1.03	g/cm³	ISO 1183
Melt Mass-Flow Rate			ASTM D1238
200°C/5.0 kg	1.1	g/10 min	
220°C/10.0 kg	13	g/10 min	
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	0.793	in³/10min	ISO 1133
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (0.118 in)	5480	psi	ASTM D638
Tensile Stress (Yield)	5660	psi	ISO 527-2/50
Tensile Stress (Break)	4500	psi	ISO 527-2/50
Tensile Elongation [2] (Break, 0.118 in)	30	%	ASTM D638
Tensile Strain (Break)	45	%	ISO 527-2/50
Flexural Modulus [3] (0.236 in)	313000	psi	ASTM D790
Flexural Modulus [4]	261000	psi	ISO 178
Flexural Strength [3] (0.236 in)	8820	psi	ASTM D790
Flexural Stress [4]	8410	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	18	ft·lb/in²	ISO 179
Charpy Unnotched Impact Strength	No Break		ISO 179
Notched Izod Impact			ASTM D256
73°F, 0.118 in	7.5	ft·lb/in	
73°F, 0.236 in	5.9	ft·lb/in	
Notched Izod Impact Strength	16	ft·lb/in²	ISO 180/1A
Unnotched Izod Impact Strength	No Break		ISO 180/1U
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	108		ASTM D785
Ball Indentation Hardness (H 358/30)	12800	psi	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	185	°F	
Heat Deflection Temperature (264 psi, Unannealed)	187	°F	ISO 75-2/A
Deflection Temperature Under Load (264 psi, Annealed)	203	°F	ASTM D648

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Annealed)	205	°F	ISO 75-2/A
Vicat Softening Temperature	217	°F	ASTM D1525 [5]
Vicat Softening Temperature			
--	214	°F	ISO 306/A50
--	198	°F	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.0630 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 185	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	356 to 428	°F
Middle Temperature	374 to 446	°F
Front Temperature	374 to 446	°F
Mold Temperature	86.0 to 158	°F

Notes

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

[2] 0.24 in/min

[3] 0.11 in/min

[4] 0.079 in/min

[5] Rate A (50°C/h)