



POLYLAC® PA-746

CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Saturday, January 30, 2016

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
RoHS Compliance	• RoHS Compliant		
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/cm ³	ISO 1183
Melt Mass-Flow Rate			ASTM D1238
200°C/5.0 kg	3.0	g/10 min	
220°C/10.0 kg	34	g/10 min	
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	2.07	in ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (0.118 in)	5900	psi	ASTM D638
Tensile Stress (Yield)	6240	psi	ISO 527-2/50
Tensile Stress (Break)	4640	psi	ISO 527-2/50
Tensile Elongation ² (Break, 0.118 in)	30	%	ASTM D638
Tensile Strain (Break)	15	%	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)	9250	psi	ASTM D790
Flexural Stress ⁴	8700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	12	ft·lb/in ²	ISO 179
Notched Izod Impact			ASTM D256
73°F, 0.118 in	5.9	ft·lb/in	
73°F, 0.236 in	4.8	ft·lb/in	
Notched Izod Impact Strength	10	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		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)	189	°F	ISO 75-2/A
Deflection Temperature Under Load (264 psi, Annealed)	203	°F	ASTM D648
Heat Deflection Temperature (264 psi, Annealed)	205	°F	ISO 75-2/A
Vicat Softening Temperature	221	°F	ASTM D1525 ⁵

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature			
--	216	°F	ISO 306/A50
--	201	°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 3.0	hr
Rear Temperature	356 to 428	°F
Middle Temperature	374 to 446	°F
Front Temperature	374 to 446	°F
Mold Temperature	86.0 to 140	°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)

