



POLYLAC® PA-777B

CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Sunday, November 3, 2019

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Impact Resistance	• Medium Heat Resistance	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• CHRYSLER MS-DB-300 CPN4500 Color: Black • CHRYSLER MS-DB-300 CPN4881 Color: All Colors	• DELPHI DX300088 Color: Black • GM GMW15572P-ABS-T2	• TOYOTA TSM 5512G-2C Color: Black
Resin ID (ISO 1043)	• >ABS<		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.03		ASTM D792
Density (73°F)	1.03	g/cm ³	ISO 1183
Melt Mass-Flow Rate (220°C/10.0 kg)	7.5	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	8.50	cm ³ /10min	ISO 1133
Molding Shrinkage	0.30 to 0.60	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ³ (Yield)	6240	psi	ASTM D638
Tensile Stress (Yield)	6380	psi	ISO 527-2/50
Tensile Stress (Break)	4930	psi	ISO 527-2/50
Tensile Elongation ³ (Break)	15	%	ASTM D638
Tensile Strain (Break)	40	%	ISO 527-2/50
Flexural Modulus ⁴	310000	psi	ASTM D790
Flexural Modulus ⁵	319000	psi	ISO 178
Flexural Strength ⁴	9200	psi	ASTM D790
Flexural Stress ⁵	9720	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	5.2	ft-lb/in ²	
73°F	10	ft-lb/in ²	
Notched Izod Impact			ASTM D256
73°F, 0.126 in	4.3	ft-lb/in	
73°F, 0.252 in	3.7	ft-lb/in	
Notched Izod Impact Strength			ISO 180/1A
-22°F	5.2	ft-lb/in ²	
73°F	10	ft-lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	112		ASTM D785

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	207	°F	ASTM D648
Heat Deflection Temperature (264 psi, Unannealed)	187	°F	ISO 75-2/A
Deflection Temperature Under Load (264 psi, Annealed)	225	°F	ASTM D648
Heat Deflection Temperature (264 psi, Annealed)	223	°F	ISO 75-2/A
Vicat Softening Temperature	239	°F	ASTM D1525 ⁶
Vicat Softening Temperature			
--	237	°F	ISO 306/A50
--	223	°F	ISO 306/B50
CLTE - Flow	4.7E-5	in/in/°F	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	194 to 203	°F
Drying Time	3.0	hr
Rear Temperature	428 to 464	°F
Middle Temperature	446 to 482	°F
Front Temperature	446 to 482	°F
Mold Temperature	86 to 158	°F
Injection Pressure	711 to 996	psi
Holding Pressure	569 to 853	psi
Back Pressure	71.1 to 213	psi

Notes

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

² 23°C

³ 0.24 in/min

⁴ 0.11 in/min

⁵ 0.079 in/min

⁶ Rate A (50°C/h), Loading 1 (10 N)