



POLYLAC® PA-777D

CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Sunday, November 3, 2019

General Information

General	
Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Features	• High Heat Resistance
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• ASTM D4673 ABS 0136 Color: Black • CHRYSLER MS-DB-191 Type B CPN3395 Color: Black • CHRYSLER MS-DB-191 Type B CPN3395 Color: Natural • CHRYSLER MS-DB-191 Type B CPN3445 Color: All Colors • DELPHI DX300000 Color: Black • GM GMP.ABS.009 • GM GMP.ABS.014 • GM GMW15572P-ABS-T2 • GM GMW15572P-ABS-T3
Resin ID (ISO 1043)	• >ABS<

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.06		ASTM D792
Density (73°F)	1.06	g/cm ³	ISO 1183
Melt Mass-Flow Rate (220°C/10.0 kg)	5.5	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	5.50	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)	6380	psi	ASTM D638
Tensile Stress (Yield)	6530	psi	ISO 527-2/50
Tensile Stress (Break)	4790	psi	ISO 527-2/50
Tensile Elongation ³ (Break)	15	%	ASTM D638
Tensile Strain (Break)	34	%	ISO 527-2/50
Flexural Modulus ⁴	320000	psi	ASTM D790
Flexural Modulus ⁵	334000	psi	ISO 178
Flexural Strength ⁴	9650	psi	ASTM D790
Flexural Stress ⁵	10600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	3.3	ft-lb/in ²	
73°F	6.7	ft-lb/in ²	
Notched Izod Impact			ASTM D256
73°F, 0.126 in	3.2	ft-lb/in	
73°F, 0.252 in	2.6	ft-lb/in	
Notched Izod Impact Strength			ISO 180/1A
-22°F	3.3	ft-lb/in ²	
73°F	6.2	ft-lb/in ²	

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Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	115		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	221	°F	
Heat Deflection Temperature (264 psi, Unannealed)	207	°F	ISO 75-2/A
Deflection Temperature Under Load (264 psi, Annealed)	239	°F	ASTM D648
Heat Deflection Temperature (264 psi, Annealed)	243	°F	ISO 75-2/A
Vicat Softening Temperature	257	°F	ASTM D1525 ⁶
Vicat Softening Temperature			
--	255	°F	ISO 306/A50
--	243	°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 221	°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)