



POLYLAC® PA-765
CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Thursday, January 31, 2019

General Information

General

Material Status	• Commercial: Active
Features	• High Flow
RoHS Compliance	• RoHS Compliant
Resin ID (ISO 1043)	• >ABS-FR(17)<

ASTM and ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.19	g/cm ³	ASTM D792
Density (23°C)	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	50.0	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)	38.1	MPa	ASTM D638
Tensile Stress (Yield)	37.0	MPa	ISO 527-2/50
Tensile Stress (Break)	28.0	MPa	ISO 527-2/50
Tensile Elongation ³ (Break)	15	%	ASTM D638
Tensile Strain (Break)	10	%	ISO 527-2/50
Flexural Modulus ⁴	2070	MPa	ASTM D790
Flexural Modulus ⁵	1800	MPa	ISO 178
Flexural Strength ⁴	60.7	MPa	ASTM D790
Flexural Stress ⁵	55.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	10	kJ/m ²	
23°C	23	kJ/m ²	
Notched Izod Impact			ASTM D256
23°C, 3.20 mm	210	J/m	
23°C, 6.40 mm	180	J/m	
Notched Izod Impact Strength			ISO 180/1A
-30°C	9.0	kJ/m ²	
23°C	22	kJ/m ²	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	73.0	°C	
Heat Deflection Temperature (1.8 MPa, Unannealed)	74.0	°C	ISO 75-2/A
Deflection Temperature Under Load (1.8 MPa, Annealed)	83.0	°C	ASTM D648
Heat Deflection Temperature (1.8 MPa, Annealed)	83.0	°C	ISO 75-2/A

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	90.0	°C	ASTM D1525 ⁶
Vicat Softening Temperature			
--	91.0	°C	ISO 306/A50
--	78.0	°C	ISO 306/B50
CLTE - Flow	8.4E-5	cm/cm/°C	ISO 11359-2

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.0 mm		V-1	
1.5 mm		V-0	
		5VB	
2.5 mm		5VA	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 85	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	180 to 210	°C
Middle Temperature	190 to 220	°C
Front Temperature	190 to 220	°C
Mold Temperature	40 to 70	°C
Injection Pressure	4.90 to 7.85	MPa
Injection Rate	Slow-Moderate	
Holding Pressure	1.96 to 4.90	MPa
Back Pressure	0.490 to 0.981	MPa
Cushion	3.18	mm

Notes

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

² 23°C

³ 6.0 mm/min

⁴ 2.8 mm/min

⁵ 2.0 mm/min

⁶ Rate A (50°C/h), Loading 1 (10 N)

