

POLYLAC® PA-765CHI MEI CORPORATION - *Acrylonitrile Butadiene Styrene*Units: English**Product Characteristics**

Material Status	• Commercial: Active
Availability	<ul style="list-style-type: none"> • Middle East • Latin America • Africa • Australia • Asia • South America • Pacific Rim • Europe • North America
Test Standards Available	<ul style="list-style-type: none"> • ASTM • DIN • ISO
Additive	• Ignition Resistant
Recycled Content	• No
Features	<ul style="list-style-type: none"> • Extinguishing, Self • Flow, High • Pellets
Forms	• Pellets
Processing Method	• Injection Molding
	<ul style="list-style-type: none"> • Flame Retardant • Impact Resistance, Medium

Properties ¹

Physical	Nominal Values (English)	Test Method
Density -Specific Gravity	1.19 sp gr 23/23°C	ASTM D792
Melt Flow Rate (200 °C/5.0 kg - G)	5.20 g/10 min	ASTM D1238
Mold Shrink, Linear-Flow (0.125 in)	0.0030 to 0.0070 in/in	ASTM D955
Mechanical	Nominal Values (English)	Test Method
Tensile Modulus (73 °F)	360000 psi	ASTM D638
Tensile Strength	5530 psi	ASTM D638
Tensile Strength @ Yield (73 °F)	5500 psi	ASTM D638
Tensile Elongation @ Brk (73 °F)	15 %	ASTM D638
Flexural Modulus (73 °F)	300000 psi	ASTM D790
Flexural Strength	8800 psi	ASTM D790
Flexural Strength @ Yield (73 °F)	8800 psi	ASTM D790
Impact	Nominal Values (English)	Test Method
Notched Izod Impact (73 °F, 0.125 in)	4.00 ft-lb/in	ASTM D256
(73 °F, 0.250 in)	3.30 ft-lb/in	
Hardness	Nominal Values (English)	Test Method
Rockwell Hardness (R-Scale)	100	ASTM D785
Thermal	Nominal Values (English)	Test Method
DTUL @264psi - Annealed	181 °F	ASTM D648
DTUL @264psi - Unannealed	163 °F	ASTM D648
DTUL @66psi - Unannealed	181 °F	ASTM D648
Vicat Softening Point	194 °F	ASTM D1525
CLTE, Flow	7.2E-005 in/in/°F	ASTM D696
Electrical	Nominal Values (English)	Test Method
Volume Resistivity	1.0E+015 ohm-cm	ASTM D257
Arc Resistance	7.00 sec	ASTM D495
Ignition Characteristics	Nominal Values (English)	Test Method
UL File Number	E56070	
Flame Rating - UL (0.0591 in)	V-0	UL 94
(0.0984 in)	5VA	
(0.0984 in)	V-0	

(0.118 in)	V-0
(0.118 in)	5VA
(0.0591 in)	5VB

UL 746	Nominal Values (English)	Test Method
Rel Temp Indx Mech w/olmp (0.0591 in)	176 °F	UL 746
(0.0984 in)	176 °F	
(0.118 in)	176 °F	
Rel Temp Indx Mech w/lmp (0.0591 in)	176 °F	UL 746
(0.0984 in)	176 °F	
(0.118 in)	176 °F	
Rel Temp Indx Elect (0.0591 in)	176 °F	UL 746
(0.0984 in)	176 °F	
(0.118 in)	176 °F	
Comparative Tracking Index (CTI) (PLC)	PLC 1	UL 746
High Voltage Arc Tracking Rate (HVTR) (PLC)	PLC 0	UL 746
Hot-wire Ignition (HWI) (PLC)		UL 746
(0.118 in)	PLC 0	
(0.0984 in)	PLC 2	
(0.0591 in)	PLC 0	
High Amp Arc Ignition (HAI) (PLC)		UL 746
(0.118 in)	PLC 0	
(0.0984 in)	PLC 0	
(0.0591 in)	PLC 0	

Additional Properties

Melt Flow Rate, ASTM D-1238, Condition G: 5.2 g/10 min
 Volume Resistivity, ASTM D257: > 1E 15 ohm-cm
 Impact Flexural Test, ISO 179/2C, Notched: 12 kJ/m²
 Impact Flexural Test, ISO 179/2D, Unnotched: No Break
 Vicat Softening Temp, DIN 53460, 50°C/hr ; 1 kg: 89°C
 Vicat Softening Temp, DIN 53460, 50°C/hr ; 5 kg: 78°C
 Vicat Softening Temp, DIN 53460, 120°C/hr ; 1 kg: 90°C
 Vicat Softening Temp, DIN 53460, 120°C/hr ; 5 kg: 80°C
 DTUL @ 1.80 MPa, DIN 53461, Unannealed: 68°C
 DTUL @ 1.80 MPa, DIN 53461, Annealed: 90°C
 Impact Flexural Test, DIN 53453, Notched: 12 kJ/m²
 Impact Flexural Test, DIN 53453, Unnotched: No Break
 Tensile Strength @ Yield, DIN 53455, 50 mm/min: 39 MPa
 Tensile Strength @ Break, DIN 53455, 50 mm/min: 34 MPa
 Tensile Elongation, DIN 53455, 50 mm/min: 10%
 Flexural Strength, DIN 53452, 2 mm/min: 55 MPa
 Flexural Modulus, DIN 53452, 2 mm/min: 1.8 GPa
 Mass Density, DIN 53479 -A, 23°C: 1.8 g/cm³

Processing Information

Injection Molding Parameters	Nominal Values (English)	Test Method
Drying Temperature	175 to 185 °F	
Drying Time	3.0 hr	
Suggested Max Moisture	0.10 %	
Suggested Max Regrind	20 %	
Suggested Shot Size	40 to 80 %	
Rear Temperature	330 to 350 °F	
Middle Temperature	345 to 365 °F	
Front Temperature	355 to 375 °F	
Nozzle Temperature	345 to 365 °F	
Processing (Melt) Temp	395 °F	

Mold Temperature	105 to 160 °F
Injection Pressure	710 to 850 psi
Injection Rate	Slow-Moderate
Holding Pressure	570 to 710 psi
Back Pressure	70.0 to 140 psi
Screw Speed	50 to 90 rpm

Notes

¹ Typical properties; not to be construed as specifications.