



## POLYLAC® PA-765

CHI MEI CORPORATION - *Acrylonitrile Butadiene Styrene*

### Product Characteristics

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>
Availability	<ul style="list-style-type: none"> <li>Middle East</li> <li>Latin America</li> <li>Africa</li> <li>Australia</li> <li>Asia</li> <li>South America</li> <li>Pacific Rim</li> <li>Europe</li> <li>North America</li> </ul>
Test Standards Available	<ul style="list-style-type: none"> <li>ASTM</li> <li>DIN</li> <li>ISO</li> </ul>
Additive	<ul style="list-style-type: none"> <li>Ignition Resistant</li> </ul>
Features	<ul style="list-style-type: none"> <li>Extinguishing, Self</li> <li>Flow, High</li> <li>Flame Retardant</li> <li>Impact Resistance, Medium</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>

### Properties

Physical	Nominal Values (English)	Test Method
Density - Specific Gravity	1.19 sp gr 23/23°C	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	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	

<b>Hardness</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Rockwell Hardness (R-Scale)	100	ASTM D785
<b>Thermal</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
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
<b>Electrical</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Volume Resistivity	1.0E+015 ohm-cm	ASTM D257
Arc Resistance	7.00 sec	ASTM D495
<b>Ignition Characteristics</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
UL File Number	E56070	
Flame Rating - UL		UL 94
(0.0591 in)	V-0	
(0.0984 in)	5VA	
(0.0984 in)	V-0	
(0.118 in)	V-0	
(0.118 in)	5VA	
(0.0591 in)	5VB	
<b>UL 746</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Rel Temp Indx Mech w/olmp		UL 746
(0.0591 in)	176 °F	
(0.0984 in)	176 °F	
(0.118 in)	176 °F	
Rel Temp Indx Mech w/lmp		UL 746
(0.0591 in)	176 °F	
(0.0984 in)	176 °F	
(0.118 in)	176 °F	
Rel Temp Indx Elect		UL 746
(0.0591 in)	176 °F	
(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	
<b>Additional Properties</b>		

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/m<sup>2</sup>  
 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/m<sup>2</sup>  
 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/cm<sup>3</sup>

**Processing Information**

<b>Injection Molding Parameters</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
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**

<sup>1</sup> Typical properties; not to be construed as specifications.

The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits or used alone as a basis for design. This information is not intended as a warranty of any kind. Buyers must make their own representative test and assume all risks of use, whether used alone or in combination with other products. ENTEC POLYMERS, LLC assumes no obligation or liability of any advice furnished by it or results obtained with respect to these products. All warranties expressed or implied including warranties of merchantability for a particular purpose or use are excluded and disclaimed. ENTEC POLYMERS, LLC assumes no liability for use of products in infringement of any patent. The foregoing limitation of remedy and exclusion of liability is reflected in and is part of the consideration for the price, at which the products are sold by ENTEC POLYMERS, LLC. All data displayed herein has been obtained via testing of injected molded specimens of natural color. Pigmentation may affect certain properties to various degrees.