



## POLYREX® PH-88

CHI MEI CORPORATION - *Polystyrene, High Impact*

### 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>
Features	<ul style="list-style-type: none"> <li>Impact Resistance, High</li> <li>Gloss, High</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 <sup>1</sup>

Physical	Nominal Values (English)	Test Method
Density -Specific Gravity	1.05 sp gr 23/23°C	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.00 g/10 min	ASTM D1238
Mechanical	Nominal Values (English)	Test Method
Tensile Strength	3550 psi	ASTM D638
Tensile Strength @ Yield	3550 psi	ASTM D638
Tensile Elongation @ Brk	40 %	ASTM D638
Flexural Modulus	280000 psi	ASTM D790
Flexural Strength	5400 psi	ASTM D790
Flexural Strength @ Yield	5400 psi	ASTM D790
Impact	Nominal Values (English)	Test Method
Notched Izod Impact (73 °F, 0.125 in)	2.02 ft-lb/in	ASTM D256
(73 °F, 0.250 in)	1.65 ft-lb/in	
Hardness	Nominal Values (English)	Test Method

Rockwell Hardness (L-Scale)	75	ASTM D785
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Thermal	Nominal Values (English)	Test Method
DTUL @264psi - Unannealed	180 °F	ASTM D648
Vicat Softening Point	210 °F	ASTM D1525

Electrical	Nominal Values (English)	Test Method
Arc Resistance	6.00 sec	ASTM D495

Ignition Characteristics	Nominal Values (English)	Test Method
UL File Number	E56070	
Flame Rating - UL		UL 94
(0.0591 in)	HB	
(0.118 in)	HB	
(0.0394 in)	HB	

UL 746	Nominal Values (English)	Test Method
Rel Temp Indx Mech w/olmp		UL 746
(0.0591 in)	122 °F	
(0.118 in)	122 °F	
(0.0394 in)	122 °F	
Rel Temp Indx Mech w/lmp		UL 746
(0.0591 in)	122 °F	
(0.118 in)	122 °F	
(0.0394 in)	122 °F	
Rel Temp Indx Elect		UL 746
(0.0591 in)	122 °F	
(0.118 in)	122 °F	
(0.0394 in)	122 °F	
High Voltage Arc Tracking Rate (HVTR) (PLC)	PLC 0	UL 746
Hot-wire Ignition (HWI) (PLC)		UL 746
(0.118 in)	PLC 3	
(0.0591 in)	PLC 3	
High Amp Arc Ignition (HAI) (PLC)		UL 746
(0.118 in)	PLC 0	
(0.0591 in)	PLC 3	

### Additional Properties

Melt Flow Index, ASTM D1238, Cond. I, g/10 min: 15.0  
Impact Flexural Test, ISO 179/2C, Notched: 12 kJ/m<sup>2</sup>  
Impact Flexural Test, ISO 179/2D, Unnotched: 100 kJ/m<sup>2</sup>  
Vicat Softening Temp, DIN 53460, 50°C/hr ; 1 kg: 96°C  
Vicat Softening Temp, DIN 53460, 50°C/hr ; 5 kg: 87°C  
Vicat Softening Temp, DIN 53460, 120°C/hr ; 1 kg: 98°C  
Vicat Softening Temp, DIN 53460, 120°C/hr ; 5 kg: 89°C  
DTUL @ 1.80 MPa, DIN 53461, Unannealed: 74°C  
DTUL @ 1.80 MPa, DIN 53461, Annealed: 89°C  
Impact Flexural Test, DIN 53453, Notched: 12 kJ/m<sup>2</sup>  
Impact Flexural Test, DIN 53453, Unnotched: 100 kJ/m<sup>2</sup>  
Tensile Strength @ Yield, DIN 53455, 50 mm/min: 27 MPa  
Tensile Strength @ Break, DIN 53455, 50 mm/min: 22 MPa  
Tensile Elongation, DIN 53455, 50 mm/min: 56%  
Flexural Strength, DIN 53452, 2 mm/min: 35 MPa  
Flexural Modulus, DIN 53452, 2 mm/min: 1.2 GPa  
Mass Density, DIN 53479-A, 23°C: 1.05 g/cm<sup>3</sup>

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### Notes

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

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For Additional Information Please Contact:

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