



# POLYREX® PG-33

## CHI MEI CORPORATION - General Purpose Polystyrene

Tuesday, November 5, 2019

### General Information

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• Latin America
RoHS Compliance	• RoHS Compliant		
Resin ID (ISO 1043)	• >PS<		

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity <sup>2</sup>	1.05		ASTM D792
Density (73°F)	1.04	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (200°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	8.00	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage	0.40 to 0.70	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>3</sup> (Break)	6530	psi	ASTM D638
Tensile Stress (Break)	6960	psi	ISO 527-2/50
Tensile Elongation <sup>3</sup> (Break)	2.0	%	ASTM D638
Tensile Strain (Break)	2.0	%	ISO 527-2/50
Flexural Modulus <sup>4</sup>	440000	psi	ASTM D790
Flexural Modulus <sup>5</sup>	450000	psi	ISO 178
Flexural Strength <sup>6</sup>	9510	psi	ASTM D790
Flexural Stress <sup>5</sup>	10900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	0.86	ft·lb/in <sup>2</sup>	
73°F	1.3	ft·lb/in <sup>2</sup>	
Notched Izod Impact			ASTM D256
73°F, 0.126 in	0.31	ft·lb/in	
73°F, 0.252 in	0.29	ft·lb/in	
Notched Izod Impact Strength			ISO 180/1A
-22°F	0.86	ft·lb/in <sup>2</sup>	
73°F	1.9	ft·lb/in <sup>2</sup>	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	77		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	174	°F	
Heat Deflection Temperature (264 psi, Unannealed)	169	°F	ISO 75-2/A
Deflection Temperature Under Load (264 psi, Annealed)	189	°F	ASTM D648
Heat Deflection Temperature (264 psi, Annealed)	189	°F	ISO 75-2/A
Vicat Softening Temperature	201	°F	ASTM D1525 <sup>7</sup>

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

# POLYREX® PG-33

## CHI MEI CORPORATION - General Purpose Polystyrene

Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature			
--	201	°F	ISO 306/A50
--	194	°F	ISO 306/B50
CLTE - Flow	2.8E-5 to 4.4E-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	176	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	302 to 338	°F
Middle Temperature	347 to 383	°F
Front Temperature	365 to 401	°F
Mold Temperature	104 to 158	°F

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 23°C

<sup>3</sup> 0.24 in/min

<sup>4</sup> 1.1 in/min

<sup>5</sup> 0.079 in/min

<sup>6</sup> 0.11 in/min

<sup>7</sup> Rate A (50°C/h), Loading 1 (10 N)