

## Polystyrene

Property	Test Method	Conditions	Units	Value	
				GPPS	HIPS
<b>Physical</b>					
Relative Density	ISO 1183		g/cm <sup>3</sup>	1.05	1.05
Water Absorption	ISO 62	23 °C	%	<0.1	<0.1
<b>Mechanical</b>					
Tensile Strength at yield	ISO 527		MPa		
Tensile Strength at break	ISO 527		MPa	55	24
Elongation at yield					
Elongation at break	ISO 527		%	3	35
Tensile Modulus of Elasticity					
Flexural Modulus	ISO 178		MPa	3,300	1950
Flexural Strength at yield	ISO 790		MPa	80	22
Izod Impact Strength	ISO 180a	notched	KJ/m <sup>2</sup>	1.5	10
Charpy Impact Strength	ISO 179/1eA	notched	KJ/m <sup>2</sup>	3	12
Impact Falling Weight					
Rockwell Hardness	ASTM D-785		R Scale	105	65
<b>Thermal</b>					
Service Temperature					
Heat Distortion Temperature	ISO 75	Load: 1.82MPa	°C	76	74
Vicat Softening Temperature	ISO 306	50°C/h 50N	°C	89	90
Coefficient of Thermal Expansion	ASTM D-696		1/°C	8.00E-05	1.00E-04
Thermal Conductivity					
Specific Heat Capacity					
<b>Optical</b>					
Light Transmission	ASTM D-1003		%	90	
Refractive Index	ASTM D-542			1.59	
Yellowness Index					
Haze					
<b>Electrical</b>					
Dielectric Strength	IEC 243/1	23 °C	kV/mm	135	155
Surface Resistivity	IEC 93		Ω	1.0E+13	1.0E+14

Other physical properties and values available on request.

## Flammability:

Standard	Classification
UL 94	HB