

High impact polystyrene from styrene butadiene with very good mechanical properties and highly resistant to cold. Our quality polystyrene sheets are characterized by high heat resistance and good stress cracking resistance.

Mechanical properties:

Yield stress	DIN EN ISO 527	16 MPa
Elongation at yield	DIN EN ISO 527	3%
Tensile strength at break	DIN EN ISO 527	16 MPa
Elongation at break	DIN EN ISO 527	>35%
Modulus of elasticity	EN ISO 178	1500 MPa
Flexural stress at given strain	DIN 53452	39 MPa
Impact strength 23°C / -30°C	DIN EN ISO 179/1eU	>40 kJ/m ² / 30 kJ/m ²
Notched imp. strength 23°C / -30°C	DIN EN ISO 179/1eU	>7 kJ/m ² / 5 kJ/m ²
Ball indentation hardness	DIN EN ISO 2039-1	80 MPa

Thermal properties:

Vicat B	DIN EN ISO 306	90°C
Temp. of deflection under load A/B	DIN EN ISO 75	78°C / 89°C
Continuous service temperature		70°C
Coeff. linear thermal expansion	ISO 7991	8-10 10 ⁻⁵ /K
Thermal conductivity	ISO 8302	0.17 W/m*K
Specific heat		1.2 kJ/kg*K

Electrical properties:

Dielectric constant	IEC 250	02.05.16
Dielectric loss factor	IEC 250	4 10 ⁻⁴
Contact resistance	DIN EN 61340-5-1	>10 ¹⁶ Ohm
Surface resistivity	DIN EN 61340-5-1	>10 ¹³ Ohm
Dielectric strength	VDE 0303	155 kV/mm

Typical properties:

Processing shrinkage		0.4-0.7%
Water absorption	ISO 62	<0.1%
Density	DIN EN ISO1183	1.05 g/cm ³
Temperature range		-10 to +70°C
Weather resistance		x