Polystyrene

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/m² / 30 kJ/m²
Notched imp. strength 23°C / -30°C	DIN EN ISO 179/1eU	>7 kJ/m² / 5 kJ/m²
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
Coeffi. 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/cm³
Temperature range		-10 to +70°C
Weather resistance		×