

## **IROPLAST SB**

### **Brief characteristic:**

High impact polystyrene with excellent mechanical properties and high cold resistance, good deflection temperature and high stress cracks performance.

### **Mechanical propertles**

Yield strength	DIN 53455	N/mm <sup>2</sup>	17,5
Elongation at yield	DIN 53455	%	2,0
Tensile strength at break	DIN 53455	N/mm <sup>2</sup>	17
Elongation at break	DIN 53455	%	> 30
Modulus in flexure	DIN 53457-B4	N/mm <sup>2</sup>	1850
Flexural stress at conventional deflection	DIN 53452	N/mm <sup>2</sup>	39
Impact strength at 23°C	DIN 53453	kJ/m <sup>2</sup>	> 30
Impact strength at -30°C	DIN 53453	kJ/m <sup>2</sup>	30
Impact strength notched at 23°C	DIN 53453	kJ/m <sup>2</sup>	6
Impact strength notched at -30°C	DIN 53453	kJ/m <sup>2</sup>	5
Indentation hardness (H 358/30)	DIN 53456	N/mm <sup>2</sup>	80

### **Thermal propertles**

Vicat softening point VST B 50	DIN 53460	°C	90
ISO/R75 process A	DIN 53461	°C	78
ISO/R75 process B	DIN 53461	°C	89
Continuous working temperature		°C	70
Thermal coefficient of linear expansion	DIN 53752	10 <sup>-5</sup> /K	8-10
Thermal conductivity	DIN 52612	W/Km	0,17
Specific heat		kJ/kgK	1,2

### **Electrical propertles**

Dielectric constant	DIN 53483		2,5
Dissipation factor	DIN 53483	10 <sup>-5</sup>	4
Specific volume resistivity	DIN 53482	Ωcm	>10 <sup>16</sup>
Surface resistivity	DIN 53482	Ω	>10 <sup>13</sup>
Dielectric strength	DIN 53481	kV/mm	155

### **Other propertles**

Shrinkage		%	0,4-0,7
Water absorption	DIN 53495	%	<0,1
Density	DIN 53479	g/cm <sup>3</sup>	1,05

8/96

These are typical values and can't be construed as product specifications.

The mechanical propertles of this technical information were established with extruded 4 mm thick sheets.

The information contained herein is believed to be reliable to the best of our knowledge. However, all recommendations are made without guarantee of performance or warranty of freedom from legal responsibility.