

**ABS Properties Test Data Sheet**

Technical Data	Method of Verification	Unit	ABS
<b>I .Physical Properties</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.06
Water absorption	ISO 62	%	0.4
<b>II .Mechanical Properties</b>			
Tensile strength at yield	ISO 527-2	MPa	45
Tensile strength at break	ISO 527-2	Mpa	-
Elongation at break	ISO 527-2	%	-
Modulus of elasticity after tensile test	ISO 527-2	MPa	2,400
Modulus of elasticity after flexural test	ISO 178	MPa	-
Hardness-Rockwell	ISO 2039-2		-
Hardness - Shore D	DIN 53505		70
Charpy impact strength at 23℃	ISO 179	kJ/m <sup>2</sup>	N. B.
Friction coefficient	DIN 53375		0.5
<b>III. Ther mal Properties</b>			
Heat deflection temperature - HDT/A	ISO 75-2	℃	88
Max. service temperature - Short term		℃	100
Max. service temperature - Long term		℃	75
Thermal conductivity at 23 ℃	DIN 11359	W/(K*m)	0.17
Coefficient of linear thermal expansion	ISO 11359	10 <sup>-4</sup> K <sup>-1</sup>	0.8
<b>IV.Electrical Properties</b>			
Dielectric constant at 1 MHz	IEC 60250	10 <sup>6</sup> Hz	3.3
Dielectric loss factor at 1 MHz	IEC 60250	10 <sup>6</sup> Hz	0.015
Volume resistively	IEC 60093	Ohm (Ω) * cm	≥10 <sup>15</sup>
Surface resistively	IEC 60093	Ohm (Ω)	≧ 10 <sup>13</sup>
Dielectric strength	IEC 60243-1	kV/mm	22
<b>V .Miscellaneous Data</b>			
Flammability	UL 94	Class	HB
<b>NOTE: 1 g/cm<sup>3</sup> = 1,000 kg/m<sup>3</sup>, 1 Mpa = 1 N/mm<sup>2</sup>, 1kV/mm = 1 MV/m</b>			

**Statement:**

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Energetic will not provide any legally binding guarantee of certain properties, or any suitability.