

# Plexiglas® V052i

## Acrylic Resin Technical Data Sheet

PROPERTIES	VALUE	UNIT OF MEASURE	TEST METHOD
<b>GENERAL CHARACTERISTICS</b>			
Density	1.18	g/cm <sup>3</sup>	ISO 1183
Water Absorption, 24H	0.4	% weight gain	ISO 62
Mold Shrinkage	0.3 - 0.6	%	ISO 294
<b>RHEOLOGICAL PROPERTIES</b>			
Melt Flow Rate	3.0	g/10min	ISO 1133, 230°C/3.8kg
Melt Volume-flow Rate	2.8	cm <sup>3</sup> /10min	ISO 1133, 230°C/3.8kg
<b>MECHANICAL PROPERTIES</b>			
Tensile Modulus	2850	MPa	ISO 527-2/1A/1
Tensile Strength @ Yield	67	MPa	ISO 527-2/1A/5
Tensile Strength @ Yield	5	%	ISO 527-2/1A/5
Flex Stress @ Conventional Deflection	85	MPa	ISO 178, Method A
Flexural Modulus	2650	MPa	ISO 178, Method A
Charpy Impact Resistance – Un-notched	28	kJ/m <sup>2</sup>	ISO 179-1/1eU/23°C
Charpy Impact Resistance – Un-notched	23	kJ/m <sup>2</sup>	ISO 179-1/1eU/-40°C
Charpy Impact Resistance – Notched	2	kJ/m <sup>2</sup>	ISO 179-1/1eA/23°C
Charpy Impact Resistance – Notched	2	kJ/m <sup>2</sup>	ISO 179-1/1eA/-40°C
Izod Impact Resistance – Notched	3	kJ/m <sup>2</sup>	ISO 180
Surface Hardness	84	M-Scale	ISO 2039-2
<b>THERMAL PROPERTIES</b>			
Vicat Softening Point - 50N	103	°C	ISO 306/B50, 50N
HDT - 1.82 MPa	94	°C	ISO 75-2, Method A, 1.8 MPa
HDT - 0.45 MPa	98	°C	ISO 75-2, Method B, 0.45 MPa
<b>OPTICAL</b>			
Refractive Index	1.49	—	ISO 489, 23°C
Luminous Transmittance	92	%	ASTM D1003, 3.2mm
Haze	1.5	%	ASTM D1003, 3.2mm

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