

# Plexiglas® HT121-LPL®

## Acrylic Resin Technical Data Sheet

PROPERTIES	VALUE	UNIT OF MEASURE	TEST METHOD
<b>GENERAL CHARACTERISTICS</b>			
Density	1.19	g/cm <sup>3</sup>	ISO 1183
Water Absorption, 24H	0.3	% weight gain	ISO 62
Mold Shrinkage	0.2 - 0.6	%	ISO 294
<b>RHEOLOGICAL PROPERTIES</b>			
Melt Flow Rate	2.0	g/10 min	ISO 1133, 230°C/3.8kg
Melt Volume-flow Rate	1.8	cm <sup>3</sup> /10 min	ISO 1133, 230°C/3.8kg
<b>MECHANICAL PROPERTIES</b>			
Tensile Modulus	3500	MPa	ISO 527-2/1A/1
Tensile Strength @ Yield	80	MPa	ISO 527-2/1A/5
Tensile Strength @ Break	80	MPa	ISO 527-2/1A/5
Tensile Strength @ Yield	4	%	ISO 527-2/1A/5
Tensile Strength @ Break	4	%	ISO 527-2/1A/5
Flex Stress @ Conventional Deflection	102	MPa	ISO 178, Method A
Flexural Modulus	3400	MPa	ISO 178, Method A
Charpy Impact Resistance – Un-notched	20	kJ/m <sup>2</sup>	ISO 179-1/1eU/23°C
Charpy Impact Resistance – Un-notched	20	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	2.0	kJ/m <sup>2</sup>	ISO 180
Rockwell Hardness	99	M-Scale	ISO 2039-2
<b>THERMAL PROPERTIES</b>			
Vicat Softening Point - 50N	114	°C	ISO 306/B50, 50N
HDT - 1.82 MPa	105	°C	ISO 75-2, Method A, 1.8 MPa
HDT - 0.45 MPa	109	°C	ISO 75-2, Method B, 0.45 MPa
<b>OPTICAL</b>			
Refractive Index	1.49	—	ISO 489, 23°C
Luminous Transmittance	92.5	%	ASTM D1003, 3.2mm
Luminous Transmission (measured at 600mm)	105	Lumens	Internal Method
Haze	< 1	%	ASTM D1003, 3.2mm
Thermo-Optic Coefficient	-1.0	10 <sup>-4</sup> /°C	dn/dT
ABBE#	57.0	NA	Metricon

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