

Plexiglas® DR®

Acrylic Resin Technical Data Sheet

PROPERTIES	VALUE	UNIT OF MEASURE	TEST METHOD
GENERAL CHARACTERISTICS			
Density	1.16	g/cm ³	ISO 1183
Water Absorption, 24H	0.4	% weight gain	ISO 62
Mold Shrinkage	0.3 - 0.6	%	ISO 294
RHEOLOGICAL PROPERTIES			
Melt Flow Rate	1.1	g/10 min	ISO 1133, 230°C/3.8kg
Melt Volume-flow Rate	1.0	cm ³ /10 min	ISO 1133, 230°C/3.8kg
MECHANICAL PROPERTIES			
Tensile Modulus	1800	MPa	ISO 527-2/1A/1
Tensile Strength @ Yield	45	MPa	ISO 527-2/1A/5
Tensile Strength @ Break	40	MPa	ISO 527-2/1A/5
Tensile Strength @ Yield	5	%	ISO 527-2/1A/5
Tensile Strength @ Break	45	%	ISO 527-2/1A/5
Flex Stress @ Conventional Deflection	50	MPa	ISO 178, Method A
Flexural Modulus	1800	MPa	ISO 178, Method A
Charpy Impact Resistance – Un-notched	65	kJ/m ²	ISO 179-1/1eU/23°C
Charpy Impact Resistance – Un-notched	30	kJ/m ²	ISO 179-1/1eU/-40°C
Charpy Impact Resistance – Notched	6	kJ/m ²	ISO 179-1/1eA/23°C
Charpy Impact Resistance – Notched	2	kJ/m ²	ISO 179-1/1eA/-40°C
Izod Impact Resistance – Notched	6.0	kJ/m ²	ISO 180
Rockwell Hardness	45	M-Scale	ISO 2039-2
THERMAL PROPERTIES			
Vicat Softening Point - 50N	88	°C	ISO 306/B50, 50N
HDT - 1.82 MPa	78	°C	ISO 75-2, Method A, 1.8 MPa
HDT - 0.45 MPa	84	°C	ISO 75-2, Method B, 0.45 MPa
OPTICAL			
Refractive Index	1.49	—	ISO 489, 23°C
Luminous Transmittance	91	%	ASTM D1003, 3.2mm
Haze	< 2	%	ASTM D1003, 3.2mm

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