



MATERIAL PROPERTIES

TYPICAL PROPERTIES OF MARCRYL RESINS						
	TEST METHOD			VALUE	UNIT	
	DIN	ASTM	ISO			
PHYSICAL						
Density	53479	D 792	R 1183	1.19		g/cm ³
Water absorption	53495: A		62	0.3		mg
OPTICAL						
Transmittance (3mm thick material in the visible range)	5036 Part 3			92		%
Haze		D 1003		0.5		%
Refractive index (n _D)			489	1.491		
THERMAL						
Heat distortion temperatures Method B (0.45 MPa)	53461	D 648	75	95		°C
Heat distortion temperatures Method A (1.81 MPa)	53461	D 648	75	90		°C
Specific heat				1.47		J/kg.K
Thermal conductivity	52612	C 177		0.19		W/K.m
Coefficient of thermal expansion	53752-A			0.07		mm/m°C
Vicat softening point (B/50)	53460		306	102		°C
MECHANICAL						
Tensile strength a) -40°C	53455	D 638	R 527	100		MPa
Tensile strength b) 23°C	53455	D 638	R 527	72		MPa
Tensile strength b) 70°C	53455	D 638	R 527	35		MPa
Elongation at break	53455	D 638	R 527	4.5		%
Flexural strength	53452	D 790	178	105		MPa
Flexural Modulus			178	3200		MPa
Compressive yield stress	53454	D 695	R 604	103		MPa
Izod Impact strength, standard			180	1.6		kJ/m ²
Charpy unnotched impact strength, 23°C			179-1/1eU	20		kJ/m ²
Ball indentation hardness (H961/30)			2039/2	175		MPa
Taber abrasion resistance (100rev.;5.4N;CS-10F)			9352	20-30		% haze
ELECTRICAL						
Volume resistivity	VDE 0303 pt 3		IEC 93	>10 ¹⁵		Ω/cm
Dissipation constant at 50 Hz	VDE 0303 pt 4		IEC 250	0.06		
Dissipation constant at 0.1 kHz	VDE 0303 pt 4		IEC 250	0.04		
Surface resistivity	VDE 0303 pt 3		IEC 93	>10 ¹⁴		Ω
Tracking CTI, 2 mm	VDE 0303 pt 1		IEC 112	KC>600		

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