Acrylic Sheet - Technical Data Sheet

GENERAL			
Property	**Method**	**Units**	**Value**
Density	ISO 1183	g/cm^3	1.19
Water Absorption 24h/23 ^oC-50x50x4mm^3	DIN EN ISO 62 Method 1	%	0.2
Ball indentation hardness	ISO 2039-1	MPa	235
Forming temperature air pressure		^oC	140-160
Forming temperature vacuum		^oC	160-190
Moulding shrinkage		%	0.5-0.8

MECHANICAL			
Property	**Method**	**Units**	**Value**
Tensile Strength	ISO 527-2	MPa	70
Elongation at break	ISO 527-2	%	4
Tensile Modulus	ISO 527-2	MPa	3200
Flexural Strength	ISO 178	MPa	115
Flexural Modulus	ISO 178	MPa	3300
Impact strength Charpy unnotched	ISO 179-1	KJ/m^2	17
Impact strength Charpy notched	ISO 179-1	KJ/m^2	2

THERMAL			
Property	**Method**	**Units**	**Value**
Vicat Temperature (B 50)*	ISO 306	^oC	105
Specific heat capacity	ISO 11357-4	J/gK	1.47
Linear thermal expansion	DIN 53752	$K^{-1*}x10^{-5}$	7
Thermal Conductivity	DIN 52612	W/mK	0.18
Service temperature continuous use		^oC	70
Max. temperature short term use		^oC	90
Degradation temperature		^oC	>280

OPTICAL			
Property	**Method**	**Units**	**Value**
Light transmission (3mm)	DIN 5036-3/ EN ISO 13468-2	%	92
Refractive index	ISO 489	n^D20	1.492

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ELECTRICAL			
Property	**Method**	**Units**	**Value**
Surface Resistivity	IEC 60093	Ω	$3x10^{15-}$
Volume Resistivity	IEC 60093	Ω x m	$1x10^{13-}5x10^{13}$
Electrical strength	IEC 60243-1	KV/mm	10
Dielectric strength	IEC 60243-1	KV/mm	30
Dialectical dissipation factor 50 Hz	DIN 53483-2		0.06
Dialectical dissipation factor 1 KHz	DIN 53483-2		0.04
Dialectical dissipation factor 1 MHz	DIN 53483-2		0.02
Relative permittivity 50 Hz	DIN 53483-2		2.7
Relative permittivity 1 KHz	DIN 53483-2		3.1
Relative permittivity 1 MHz	DIN 53483-2		2.7
*Pre-treatment 16h at 80 ^{o}C. Technical data of our products our typical ones: the actual measured values are subject to production variations			