TECHNICAL DATA SHEET

STN EN ISO 7823-2

GENERAL				
Property	**Method**	**Unit**	**AKRYLON®**	**AKRYLON®UVT**
Density	EN ISO 1183	g/cm³	1,19	1,19
Water absorption 24h/23°C – 50x50x4mm³	EN ISO 62 – Method 1	%	0,2	0,2
Ball indentation hardness	EN ISO 2039-1	MPa	235	235
Forming temperature air pressure		°C	140 - 160	140 - 160
Forming temperature vacuum		°C	160 - 190	160 - 190
Moulding shrinkage		%	0,5 – 0,8	0,5 – 0,8
MECHANICAL				
Property	**Method**	**Unit**	**AKRYLON®**	**AKRYLON®UVT**
Tensile strength	EN ISO 527-2	MPa	70	70
Elongation at break	EN ISO 527-2	%	4	4
Tensile modulus	EN ISO 527-2	MPa	3200	3200
Flexural strength	EN ISO 178	MPa	115	115
Flexural modulus	EN ISO 178	MPa	3300	3300
Impact strength Charpy un notched	EN ISO 179-1	kJ/m²	17	17
Impact strength Charpy notched	EN ISO 179-1	kJ/m²	2	2
OPTICAL				
Property	**Method**	**Unit**	**AKRYLON®**	**AKRYLON®UVT**
Light transmission (3 mm clear)	EN ISO 13468-2	%	92	92
Refractive index	EN ISO 489	n_D^{20}	1,492	1,492

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Total solar energy transmission (g – Wert)	EN 410	%	86,5	86,5
Gloss value	DIN 67530		>100	>100

THERMAL

Property	**Method**	**Unit**	**AKRYLON®**	**AKRYLON®UVT**
Vicat temperature (B 50) Pre-treatment 16h at 80°C	EN ISO 306	°C	105	105
Specific heat capacity	EN ISO 11357-4	J/gK	1,47	1,47
Linear thermal expansion	ISO 11359-2	mm/m x °C	0,07	0,07
Thermal conductivity	EN ISO 22007-1	W/mK	0,18	0,18
Service temperature continuous use		°C	70	70
Max. temperature short term use		°C	90	90
Degradation temperature		°C	>280	> 280

ELECTRICAL

Property	**Method**	**Unit**	**AKRYLON®**	**AKRYLON®UVT**
Surface resistivity	IEC 60093 EN 62631-1-3-2	Ω	$3x10^{15}$ - $3x10^{16}$	$3x10^{15}$ - $3x10^{16}$
Volume resistivity	IEC 60093 EN 62631-1-3-1	Ω x m	$1x10^{13}$ - $5x10^{13}$	$1x10^{13}$ - $5x10^{13}$
Electrical strength	IEC 60243-1 EN 60243-1	kV/mm	10	10
Dielectric strength	IEC 60243-1 EN 60243-1	kV/mm	30	30
Dielectric dissipation factor 50 Hz	DIN 53483-2		0,06	0,06
Dielectric dissipation factor 1 KHz	DIN 53483-2		0,04	0,04
Dielectric dissipation factor 1 MHz	DIN 53483-2		0,02	0,02

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Relative permittivity 50 Hz	DIN 53483-2		2,7	2,7
Relative permittivity 1 KHz	DIN 53483-2		3,1	3,1
Relative permittivity 1MHz	DIN 53483-2		2,7	2,7
OTHERS				
Property	**Method**	**Unit**	**AKRYLON®**	**AKRYLON® UVT**
Fire resistance	UL94	Flame class	HB	HB
Biocompatibility	DIN ISO 10993-5	---	No cytotoxic	No cytotoxic
Fire performance	CPD 305/2011 EN 13501-1	classification	E No burning droplets	E No burning droplets
Food contact - GMP	EU Richtlinie 1935/2004 VO 10/2011	---	Conform	Conform

Note: Technical data of our products are typical ones; the actually measured values are subject to production variations.

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