

## Material support S1 ACRYLIC SHEET.

### RECYCLING POSSIBILITIES

Off-cuts from either cast or extruded sheet can be reprocessed without causing any special environmental problems, waste can be subjected to a "cracking" process. This allows recovery of the original monomer (methylmethacrylate).

### Maintenance:

We suggest using soapy water but never any cleaning solvent, alcohol, window cleaner or any other detergent without knowing its specific ingredients.

Soapy water and soft cloth are best to prevent any panel damage.

Please note that a specific product suited for panel cleaning exists: Altuglas cleaner. It cleans the surface perfectly without leaving any stain however it will leave provide an invisible anti-static film keeping dust away from panel.

### Scratches:

Removing light scratches on panel can be done by polishing. Clean with soapy water and dry (microfiber). Apply the polish and rub in a circular pattern to remove scratches. Repeat until complete removal. After polish application, use Altuglas cleaner or soapy water to restore shine and remove finger prints.

### Cuts:

Panels are cut to required dimension, we therefore do not advise any further cutting which could permanently damage the printed surface. However, if you have to make adjustment cuts, make sure to protect all panel surfaces from friction. Circular saw is normally used for straight cut, inverted blade on jig saw can be use. In any case, we recommend you use a new blade with carbide teeth.

Please note that you can require a specific cut at the time of order. Finally apply fungi proof silicone sealant between wall and panel for wall to wall installation.

	ISO	NF	Others	Units	Thickness mm	Value
<b>GENERAL PROPERTIES</b>						
Water absorption, 24 hrs.	62	T 51002	DIN 53495	%	4	0.30
Water absorption, 8 days	62	T 51002	DIN 53495	%	4	0.50
Water absorption, max. (Total immersion, 1200 hrs.)			Internal	%	3	1.75
Density	1183	T 51063	DIN 53479			1.19
<b>MECHANICAL PROPERTIES</b>						
Poisson ratio to 20°C						0.39
Tensile strength to 23°C	527	T 51034	DIN 53455			
Stress at break	-2/1A/5			MPa	4	76
Modulus of elasticity				MPa	4	3300
Elongation at break				%	4	6
Tensile strength to - 20°C	527	T 31034	DIN 53455			
Stress at break	-2/1A/5			MPa	4	102
Elongation at break				%	4	5
Tensile strength to 80°C	527	T 51304	DIN 53455			
Stress at break	-2/1A/5			MPa	4	24
Elongation at break				%	4	22
Flexural strength to 23°C	178*	T 51001	DIN 53452			
Stress at break				MPa	4	130
Modulus of elasticity				MPa	4	3250
Charpy impact strength (un-notched)	179/2D	T 51035	DIN 53453	Kj/m <sup>2</sup>	4	12
Izod impact strength (notched)	180/1A		ASTM D256A	Kj/m <sup>2</sup>	4	1.4
Hardness, Rockwell Scale M	2039		ASTM D 785			100
Hardness, Shore Scale D	868	T 51109				60-70
Compressive strength	684	T 51101	DIN 53454	MPa	4	130
Shear strength - dynamic modulus			DIN 53445	MPa		1700
<b>OPTICAL PROPERTIES</b>						
Light transmittance	T 51068	DIN 5036				
3 mm thick				%	3	92
5 mm thick				%	5	92
8 mm thick				%		
10 mm thick				%	10	92
Refractive index	T 51064	DIN 53491				1.492
<b>ELECTRICAL PROPERTIES</b>						
Dielectric strength	C 26225	DIN 53481		KV/mm		20 to 25
Transverse resistivity	C 26215	DIN 53482		Ohm.cm		> 10 <sup>15</sup>
Dielectric constant	C 26230	DIN 53483				
to 50 Hz						3.7
to 1 MHz						2.6
<b>THERMAL PROPERTIES</b>						
Coefficient of linear expansion	EN 2155-1	T 51251	DIN 52328	mm/m/°C		0.065
Thermal conductivity			DIN 52612	W/m <sup>2</sup> /°C		0.17
Specific heat			ASTM C 351	J/g/°C		1.32
Insulation coefficient K			DIN 4701			
3 mm thick				W/m <sup>2</sup> /°C	3	5.4
5 mm thick				W/m <sup>2</sup> /°C	5	5.1
10 mm thick				W/m <sup>2</sup> /°C	10	4.5
Vicat softening point B 10/10, conditioned samples	306	T 51021	DIN 53460	°C		115
Heat distortion temperature under load, 1.8 N/mm <sup>2</sup> , conditioned samples	75/A	T 51005	DIN 53461	°C		109
Max. continuous service temperature				°C		85
Forming oven temperature				°C		130-190
Max. heating temperature				°C		200
Max. linear shrinkage after heating, thickness ≥ 3 mm				%		2
Max. linear shrinkage after heating, thickness < 3 mm				%		2
Max. superficial temperature under infrared			°C		220	
<b>FLAMMABILITY</b>						
Self-ignition temperature				°C		approx.450
Flame resistance (Radiant heat source)	P 92501				3	M4
Melt behaviour when burning	P 92505				3	non-drip
Flame resistance			DIN 4102			B2
Flame resistance			BS 476 Pt. 7			class 3
Flame resistance			UL 94			HB
Oxygen index	T 5107		ASTM 2863 77	%		18
Chlorine content				%		0
Nitrogen content				%		< 0.02

