

TECHNICAL DATA SHEET

Revision date: 29.01.2018

Print date: 17.05.2018



Acryl

	DIN	ISO	ASTM	UM	VALUE
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General characteristics

Specific gravity	53479	1183	D792	g/cm	1.15
Water absorption	53492	62	D570	%	0.36

Mechanical properties

Tensile strength	53455	527	D638	MPa	38
Ultimate elongation	53455	527	D638	%	35
Rockwell hardness	/	2039	D785	MPa	M 42
Impact strength (CHARPY unnotched)	53453	179	/	KJ/m	50
Impact strength (IZOD notched)	53453	180	D256	J/m	58.5

Optic properties

Refractive index B	53491	489	/	/	1.49
Transmittance	5036	/	/	%	90

Thermic properties

Vicat softening point B/50	53460	306	D1525	°C	88.5
HDT under load -1,82 MPa	53461	75	D648	°C	84,5
Coefficient of thermic expansion	53752	/	/	10 ⁻⁶ K	100

Technical characteristics

Material:	Shock Resistant Acrylic
Temperature range:	From - 40°C to + 80°C
Scratch resistance:	Internal Test with Sclerometer (value=300gr)
Outdoor Use:	Yes

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Indoor Use:	Yes
Fire resistance:	UL94 method - HB class
Odour:	Odourless

Aesthetic characteristics

Top finish:	Glossy on one side
Surface finish:	Without any hole, inclusion, scratch, according to the approved sample
Colour:	Black, White

Cutting edges

Width:	Clean cut and without any burr (shearing)
Length:	Cut with shear after the extrusion

Geometrical characteristics

Sheet dimensions:	1220 x 610 mm (tolerance +/- 0,2%) edges at right angles
Thickness:	1.5 mm (tolerance +/- 0.1 mm). Different thickness request to be agreed with our technical office.

UV Colour resistance

The lowest value measured according to the "blue colour scale" is:

4/5 for the coloured sheets

4 for the metals sheets

The tests have been made in QUV.

Resistance to varnish and similars

- + Non aromatic petrol
- o Pure oil paints
- o Inks and varnish for acrylic glass
- Nitro varnish
- Diluent, in general

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Resistance to chemical agents, solvents

+ Acid for accumulators	+ Sodium bisulphite	- Amylacetate
+ Alum	+ Sodium carbonate	- Aniline
+ Aluminium chloride	+ Sodium chlorate	- Acetic acid, concentrated
+ Aluminium oxalate	+ Sodium chloride	- Acetone
+ Aluminium sulphate	+ Sodium hypochlorite	- Benzaldehyde
+ Ammonium sulphate	+ Sodium sulphate	- Benzol
+ Aqueous zinc sulphate	+ Sodium sulphide	- Bromine
+ Arsenic	+ Solid zinc sulphate	- Butanol
+ Arsenic acid	+ Stannous chloride	- Carbon sulphide
+ Calcium chloride	+ Stearic acid	- Carbon tetrachloride
+ Calcium hypochlorite	+ Sulphur	- Chloroethylether
+ Calcium milk	+ Sulphuric acid, up to 30%	- Chlorophenol
+ Caustic potash	+ Sulphurous acid up to 5%	- Concentrated ethanol
+ Caustic soda	+ Sulphuryl chloride	- Concentrated methanol
+ Citric acid, up to 20%	+ Tartaric acid up to 50%	- Diacetic alcohol
+ Diethylenglicol	+ Triethanolamine	- Dibutylphthalate
+ Ferric chloride	+ Trycresil phosphate	- Dioctylphthalate
+ Ferrous chloride	+ Oxygenized water up to 40%	- Dioxane
+ Formic acid, up to 20%	+ Uric acid up to 20% or chlorwater	- Ether
+ Glycerine	o Acetic acid up to 25%	- Ethyl acetate
+ Glycol	o Ammonia	- Ethyl bromide
+ Heptane	o Butyric acid up to 5%	- Ethyl butyrate
+ Hexane	o Chromic acid	- Ethylene bromide
+ Hydrogen peroxide up to 40%	o Cyclohexanole	- Hydrocarbon chlorate
+ Iron vitriol	o Concentrated sulphurous acid	- Lactic acid butylester
+ Lactic acid, up to 20%	o Cyclohexane	- Liquid chlor
+ Magnesium chloride	o Diamylphthalate	- Liquid sulphurous anhydride
+ Magnesium sulphate	o Ethanol, up to 30%	- Methyl ethyl ketone
+ Manganese sulphate	o Formic acid, up to 40%	- Nitric acid, over 70%
+ Mercury	o Hydrochloric acid	- Perchloroethylene
+ Metallic iodine	o Hydrofluoric acid up to 20%	- Phenol
+ Monobromic naphthalene	o Hydrogen peroxide over 40%	- Phosphorous trichloride
+ Nickel sulphate	o Isopropyl alcohol	- Pyridine
+ Nitric acid, up to 20%	o Methanol, up to 30%	- Silicon tetrachloride
+ Octane	o Nitric acid, from 20 to 70%	- Spirit
+ Oil turpentine	o Oil	- Thionyl chloride
+ Oxalic acid	o Oxygenized water over 40%	- Toluol
+ Petroleum ether	o Substitute turpentine	- Trichloroacetic acid
+ Phosphate		- White Phosphor
+ Phosphoric acid up to 10%		- Xylol

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- + Potassium carbonate
- + Potassium chloride
- + Potassium dichromate
- + Potassium nitrate
- + Potassium permanganate
- + Potassium cyanide
- + Propyl
- + Pure petrol
- + Silver nitrate
- + Soapy water
- + Soda
- + Sodium acetate 32%

+ = resists

o = it resists relatively

- = it doesn't resist

The above state information refers to tests carried out at given parameters and on items in standard conditions. The product is suitable only for the above mentioned standard usage parameters. The manufacturer declines any responsibility in case of improper use of the product when the product is exposed to stresses exceeding the values stated herein.