

# TECHNICAL SPECIFICATIONS

Revision date: 02.08.2016

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## Lasertec / ADA

	DIN	ISO	ASTM	UM	VALUE
<b><u>General characteristics</u></b>					
Specific gravity	53479	1183	D792	g/cm	1.15
Water absorption	53492	62	D570	%	0.36
<b><u>Mechanical properties</u></b>					
Tensile strength	53455	527	D638	MPa	38
Ultimate elongation	53455	527	D638	%	35
Rockwell hardness	/	2039	D785	/	M 42
Impact strength (CHARPY unnotched)	53453	179	/	KJ/m	50
Impact strength (IZOD notched)	53453	180	D256	J/m	58.5
<b><u>Optic properties</u></b>					
Refractive index B	53491	489	/	/	1.49
Transmittance	5036	/	/	%	90
<b><u>Thermic properties</u></b>					
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	/	/	<sup>-6</sup> 10 K	100
<b><u>Technical characteristics</u></b>					
Material:	Impact Modified Acrylic / Single Ply Modified Acrylic				
Temperature range:	From - 40°C to + 80°C				
Scratch resistance:	Internal Test with Sclerometer (value=300gr)				

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Outdoor Use:	Yes
Indoor Use:	Yes
Fire resistance:	UL94 method - HB class
Odour:	Odourless
Engraving method:	Pantograph, Laser / Laserable, Router, Rotating carbide
Engraving depth:	0,3 mm (0,5 mm for metal tops)
<b><u>Aesthetic characteristics</u></b>	
Top finish:	Matt, Glossy, Textured / Matte non-glare
Surface finish:	Without any hole, inclusion, scratch, according to the approved sample
Contaminations:	N° 01 ≤ 1 mm N° 01 ≤ 0,5 mm N° 03 ≤ 0,2 mm
<b><u>Geometrical characteristics</u></b>	
Sheet dimensions:	1220 x 610 mm (tolerance +/- 0,2%) edges at right angles
Total thickness:	0.7, 1.5 mm (tolerance +/- 0.1 mm) 3.1 mm (tolerance +/- 0.2 mm)
Thickness of the top:	0,1 e 0,2 mm (tolerance +/- 0,03 mm) / 0 mm

## **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
+ Ammonia Alaune	+ Sodium sulphate	- Benzol
+ Ammonium sulphate	+ Sodium sulphide	- Bromine
+ Aqueous zinc sulphate	+ Solid zinc sulphate	- Butanol
+ Arsenic	+ Stannous chloride	- Carbon sulphide
+ Arsenic acid	+ Stearic acid	- Carbon tetrachloride
+ Calcium chloride	+ Sulphur	- Chlorinated hydrocarbon
+ Calcium hypochlorite	+ Sulphuric acid, up to 30%	- Chloroethylether
+ Calcium milk	+ Sulphurous acid up to 5%	- Chlorophenol
+ Caustic potash	+ Sulphuryl chloride	- Concentrated ethanol
+ Caustic soda	+ Sulphur sodium	- Concentrated methanol
+ Citric acid, up to 20%	+ Tartaric acid up to 50%	- Diacetic alcohol
+ Diethylenglicol	+ Triethanolamine	- Dibutylphalate
+ Ferric chloride	+ Trycresil phosphate	- Dioctylphalate
+ Ferrous chloride	+ Turpentine oil	- Dioxane
+ Formic acid, up to 20%	+ Oxygenized water up to 40%	- Ether
+ Glycerine	+ Uric acid up to 20% or chlorwater	- Ethyl acetate
+ Glycol	o Acetic acid up to 25%	- Ethyl bromide
+ Heptane	o Ammonia	- Ethyl butyrate
+ Hexane	o Butyric acid up to 5%	- Ethylene bromide
+ Hydrogen peroxide up to 40%	o Chromic acid	- Hydrocarbon chlorate
+ Iron vitriol	o Ciclohexanole	- Lactic acid butylester
+ Lactic acid, up to 20%	o Concentrated sulphurous acid	- Liquid chlor
+ Magnesium chloride	o Cyclohexane	- Liquid chlor
+ Magnesium sulphate	o Diamylphalate	- Liquid sulphurous anhydride
+ Manganese sulphate	o Ethanol, up to 30%	- Liquid Sulphurous dioxide
+ Mercury	o Formic acid, up to 40%	- Methyl ethyl ketone
+ Metal iodine	o Hydrochloric acid	- Nitric acid, over 70%
+ Metallic iodine	o Hydrochloric acid	- Perchloroethylene
+ Monobromic naphthalene	o Hydrogen peroxide over 40%	- Phenol
+ Nichel sulphate	o Isopropyl alcohol	- Phosphorous trichloride
+ Nitric acid, up to 20%	o Methanol, up to 30%	- Pyridine
+ Octane	o Nitric acid, from 20 to 70%	- Silicon tetrachloride
+ Oil turpentine	o Oil	- Spirit
+ Oxalic acid	o Oxygenized water over 40%	- Thionyl chloride
+ Petroleum ether	o Petroleum	- Toluol
+ Phosphate	o Substitute turpentine	- Trichloroacetic acid

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- |                          |                  |
|--------------------------|------------------|
| + Potassium bicarbonate  | - White Phosphor |
| + Potassium carbonate    | - Xylol          |
| + Potassium chloride     |                  |
| + Potassium dichromate   |                  |
| + Potassium hydrate      |                  |
| + Potassium nitrate      |                  |
| + Potassium permanganate |                  |
| + Potassium cyanide      |                  |
| + Propyl                 |                  |
| + Pure petrol            |                  |
| + Silver nitrate         |                  |
| + Soapy water            |                  |
| + Soda                   |                  |
| + Sodium acetate 32%     |                  |

+ = it resists

o = it resists relatively

- it doesn't resist

**LASERTEC / ADA is free from halogen and silicon. LASERTEC / ADA is UV-resistant and tested in extreme circumstances with regard to durability against weathering. LASERTEC / ADA keeps a brilliant surface during a long term period, as well as it keeps its physical characteristics.**

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.