

## Perspex<sup>®</sup> Cast Chemical Resistance Technical Data Sheet

## **Chemical Resistance Values**

The table below shows the chemical resistance of Perspex<sup>®</sup> cast acrylic sheet to a variety of chemicals. Values quoted are the results of tests on representative samples and do not constitute a specification.

The following symbols have been used:

S = Satisfactory (no apparent effect apart from possible staining)

A = Some attack evident (swelling or slight crazing)

U = Unsatisfactory (the sample has dissolved, swollen, decomposed, etc.)

Chemical	Concentration	Resistance	Exposure Time	Notes
A setia solid	4.00/	0	<b>F</b>	
Acetic acid	10%	S	5 years	-
	100%	U	1 day	Badly swollen
	Glacial	U	3 days	Dissolved
Acetone	100%	U	1 day	Dissolved
Alcohol, n-butyl	-	U	1 year	Crazing and disintegration
Alcohol, ethyl	10%	A	1 year	Slight attack
	50%	A	1 year	Slight attack
	100%	U	1 year	Slight swelling and softening
Alcohol, isopropyl	10%	A	1 year	Crazing
	50%	A	1 year	Crazing
	100%	A	1 year	Attacked
Alcohol, methyl	10%	А	1 year	Slight attack
	50%	А	168 days	Swollen
	100%	U	168 days	Swollen: weight increase
Ammonia	0.880 sol.	S	1 year	-
Amyl acetate	-	Ŭ	28 days	Dissolved
Aniline		Ŭ	7 days	Dissolved
Aviation fuel	100-octane	A	168 days	Slight crazing
Benzaldehyde	-	U	7 days	Dissolved
Benzene		U	1 day	Dissolved
Butyl acetate	-	U	10 days	Dissolved
Calcium chloride	- Saturated sol.	S		
	Saturated Sol.	U	3 years	Slight attack
Carbon tetrachloride	-	-	84 days	Dissolving
Chloroform	-	U	1 day	Dissolved
Chlorine	2% in water	A	5 years	Surface crazing and attack
Chromic acid	10%	S	5 years	Stained
	Saturated sol.	U	1 year	Dissolving
Citric acid	Saturated sol.	S	5 years	-
Dibutyl phthalate	-	A	2 years	Surface crazed
Dioctyl phthalate	-	A	2 years	Slight attack
Dibutyl sebacate	-	A	2 years	Slight attack
Diethyl ether	-	U	168 days	Swollen & soft
Ethylene glycol	-	S	5 years	-
Ethylene dichloride	-	U	1 day	Dissolved
Ethyl acetate	-	U	3 days	Dissolved
Epichlorhydrin	-	U	1 day	Dissolved
Formaldehyde	40%	S	5 years	-
Formic acid	10%	S	5 years	-
	90%	U	7 days	-
Glycerol (glycerine)	-	S	5 years	-
Hexane	-	S	168 days	Slight crazing
Hydrochloric acid	10%	S	168 days	Slight crazing
	Concentrated	S	168 days	Slight crazing
Hydrocyanic acid	-	U	1 day	Dissolved
Hydrofluoric acid	Concentrated	U	1 day	Swollen & soft
Hydrogen peroxide	10 vol.	S		
i iyulogeli peloxide		U	1 year	-
Morours	90%		1 day	-
Mercury T: +44 (0) 1254 874000 F: +44	-	S	2 years	-

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Swollen Staining Hazing Slight crazing Swollen Severe crazing Dissolved Severe crazing Slight staining Severe staining Slight edge attack Swollen Dissolved Dissolved Dissolved Attacked / crazed Slight crazing

Dissolved

Dissolved

Dissolved

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## Perspex<sup>®</sup> Cast Acrylic Sheet

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