

Product Data - Plexicast Acrylic



	Item	Test method and conditions	Unit	Test result
General	Specific gravity	JIS K-7112	-	1.19
	Water absorption rate (24 hrs)	JIS K-7209 / ISO 62	Wt %	0.3 / 0.2
	Vicat softening point	ISO 306 (4)	°C	Min Ca 110
	Relative density	ISO 1183	-	1.19
Mechanical	Tensile strength	JIS K-7113 / ISO 527 (1)	MPa	79 / 75
	Tensile elongation	JIS K-7113 / ISO 527 (1)	%	2 ~ 7 / 4
	Flexural strength	JIS K-7203 / ISO 178 (2)	MPa	118 / 116
	Flexural modulus	JIS K-7203 / ISO 178 (2)	MPa	3200 / 3210
	Izod impact strength (notched)	JIS K-7110	KJ/m ²	2
	Charpy impact strength (unnotched)	JIS K-7111 / ISO 179 (3)	KJ/m ²	17 / 12
	Internal strain	ASTM D-638-67T	% - 1/4"	<1
	Rockwell hardness	ASTM D-2240	D scale	90
	Pencil hardness	JIS D-0202	-	2 ~ 3H
Optical	Specific surface resistance	JIS K-6911	-	>10 ¹⁶
	Total light transmittance	JIS K-7105 / ASTM D-1003	%	93 / 92
	Haze	JIS K-7105	%	0.5
Thermal	Refractive index (n _D ²⁰)	JIS K-7105 / ISO 489/A	-	1.49
	Heat conductivity	(20°C)	W/m.k	0.19
	Specific heat capacity	JIS K-7123	KJ / kg. K	1.47
	Deflection temperature under load	JIS K-7207	°C	100
	Maximum continuous use temperature	-	°C	80
	Flammability	ASTM D-635	IN/MIN	1.1
Chemical Resistance	Linear expansion coefficient	JIS K-7197	K ⁻¹	7 x 10 ⁻⁵
	Acetic acid, 5% (vinegar)	Ferric chloride	Motor fuel benzene-free	Sodium carbonate
	Alum	Ferrous chloride	Nickel sulphate	Sodium chlorate
	Aluminium chloride	Ferrous sulphate	Nitric acid, to 20%	Sodium chloride
	Aluminium oxalate	Formic acid, to 2%	Oxalic acid	Sodium hydroxide
	Aluminium sulphate	Glycerol	Petroleum ether	Sodium hypochlorite
	Ammonia, aqueous solution	Glycol	Phosphoric acid, to 10%	Sodium sulphate
	Ammonium sulphate	Heptane	Picric acid, 1% in water	Sodium sulphide
	Arsenic	Hexane	Potassium dichromate	Stearic acid
	Arsenic acid	Hydrochloric acid	Potassium carbonate	Sulphur
	Battery acid	Hydrochloric acid, to 20%	Potassium chloride	Sulphuric acid, to 30%
	Butyric acid, to 5%	Hydrogen peroxide, to 40%	Potassium cyanide	Sulphurous acid, to 5%
	Calcium chloride	Iodine	Potassium hydroxide	Sulphuryl chloride
	Calcium hypochlorite	Magnesium chloride	Potassium nitrate	Tartaric acid, to 50%
	Citric acid, to 20%	Magnesium sulphate	Potassium permanganate	Triethylamine
	Copper sulphate	Manganese sulphate	Silver nitrate	Tricresyl phosphate
	Cyclohexane	Mercury	Soap solution	Urea, to 20%
	Diethylene glycol	Milk of lime	Soda	Zinc sulphate, solid
	Ethyl alcohol, to 15%	Monobromonaphthalene	Sodium bisulphite	

These data are presented only as typical properties of the base resins which, to our best knowledge, are true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guaranty or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise. All risks of such use are assumed by the user. Furthermore, nothing contained herein shall be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing or future patents.