

PC Datasheet

Sheet Properties

- Excellent transparency and high gloss surface
- High heat resistance
- Available with UV protection
- High toughness
- Excellent impact resistance
- Thermo formable
- Medium chemical resistance
- Flammability resistance
- Reduces sound transmission
- Recyclable

Thermal Stability

- PC Sheet can be used for continuous use temperatures as high as 120°C, according to the application.

Fabrication

- Easily saw cut, routed and drilled without burrs. Stress-free holes can easily be produced. Can be machined using conventional milling machines. Good clamping system necessary. Laser cutting is not recommended.

Weathering

- The ultraviolet component in solar radiation causes most plastics to degrade. This degradation depends on the exposure conditions, i.e. the actual duration of the exposure, the angle of the sheet with respect to the incidence of the solar radiation, and the temperature, humidity and intensity of the radiation (geographical coordinates).
- Degradation gradually decreases mechanical properties.
- PC-UV has a special coextruded UV protection that allows it to be used for external applications where the sheet is subjected to ultraviolet light.
- This UV stabilised product has a limited warranty of ten years against yellowing and loss of transparency and of mechanical properties.
- PC sheet is not specially protected against the effects of weathering, although the material itself does possess a certain build in resistance to weathering conditions and may thus be used for outdoor applications in which the sheet is not permanently exposed to such radiation.

Applications

- Displays, display cases and other Point of Purchase advertising applications
- Machine guards
- Moulds
- Vending and recreation machines
- Signs
- Protective shields
- Security glazing
- Building elements

- Street furniture (vandal-proof)
- Wall & ceilings sheeting
- Cladding panels
- Storage room panels
- Caravan body panels
- Any thermoforming industrial application

Material Characteristics

	METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g.cm ⁻³	1,2
MECHANICAL			
Tensile Strength @ Yield	ISO 527	Mpa	60
Tensile Strength @ Break	ISO 527	Mpa	72
Elongation @ Break	ISO 527	%	150
Tensile Modulus of Elasticity	ISO 527	Mpa	2300
Flexural Strength	ISO 178	Mpa	97
Charpy Notched Impact Strength (23°C)	ISO 180	kJ.m ⁻²	55
Izod Unnotched	ISO 180	J.m ⁻²	No break
Izod Notched (23°C)	ISO 180	J.m ⁻²	950
Rockwell Hardness M / R scale	ASTM D- 785	Mpa	72/118
OPTICAL			
Light Transmission	ASTM D-1003	%	87-91
Refractive Index	ASTM D-542		1,586
THERMAL			
Max. service temperature		°C	120
Vicat Softening Point - 50N	ISO 306	°C	151
HDT A @ 1.8 Mpa	ISO 75-1,2	°C	143
HDT B @ 0.45 Mpa	ISO 75-1,2	°C	146
Coefficient of Linear Thermal Expansion x10 ⁻⁵		x10 ⁻⁶ . °C ⁻¹	68

If you need further information about our sheet, please contact our Technical Department.

*Not available

CHEMICAL RESISTANCE	BEHAVIOUR		
	GOOD	LIMITED	POOR
Mineral Oil	X		
Vegetable Oil	X		
Acetone			X
Acetic Acid	X		

This information is, to the best of our knowledge, accurate and reliable to the date indicated. The above mentioned data have been obtained by tests we consider as reliable. We don't assure that the same results can be obtained in other laboratories, using different conditions by the preparation and evaluation of the samples.

CHEMICAL RESISTANCE	BEHAVIOUR		
	GOOD	LIMITED	POOR
Water	X		
Turpentine			X
Ammonia			X
Detergents	X		
Ethanol	X		
Petrol			X
Glycerine		X	
Methanol			X
Toluene			X

FIRE PERFORMANCE		
COUNTRY	STANDARD	CLASSIFICATION
GERMANY	DIN 4102-1	B1
FRANCE	NPF 92-507	M2