

SWP Datasheet – Clear Polycarbonate

STANDARD SPECIFICATIONS FOR PC RESIN			
	CODE	UNIT	VALUE
PHYSICAL			
Density	ISO 1183	g/cm ³	1.2
MECHANICAL			
Tensile strength to deformation	ISO 527	MPa	60
Tensile strength to breakage	ISO 527	MPa	72
Elongation to breakage	ISO 527	%	150
Elasticity modulus in traction	ISO 527	MPa	2,300
Resistance to flexion	ISO 178	MPa	97
Charpy impact strength notched (23°C)	ISO 180	kJ/m ²	55
Izod Unnotched (23°C)	ISO 180	J/m	No breakage
Izod Notched (23 °C)	ISO 180	J/m	950
Rockwell hardness, M / R scale	ASTM D-785		72/118
OPTICAL			
Light transmission	ASTM D-1003	%	87-91
Refractive index	ASTM D-542		1,586
THERMAL			
Maximum Service temperature		°C	120
VICAT Softening temperature (50 N)	ISO 306 B	°C	151
Heat deflection temperature, HDT A (1.8 MPa)	ISO 75-2	°C	143
Heat deflection temperature HDT B (0.45 MPa)	ISO 75-2	°C	146
Coefficient of linear thermal expansion	ASTM D-696	10 ⁻⁷ /mK	6.8

These data correspond to raw material values.

CHEMICAL RESISTANCE			
CHEMICAL PRODUCT	BEHAVIOUR		
	SATISFACTORY	REGULAR	UNSATISFACTORY
Mineral oil	X		
Vegetable oil	X		
Acetone			X
Acetic acid	X		
Water	X		
Turpentine			X
Ammonia			X
Detergents	X		
Ethanol	X		
Petrol			X
Glycerine		X	
Methanol			X
Toluene			X

REACTION TO FIRE		
COUNTRY	CODE	CLASSIFICATION
GERMANY	DIN 4102-1	B1
FRANCE	NFP 92-507	M2
EU	DIN EN 13501-1	B - s1, d0