

## SAN-uv Datasheet

### Sheet Properties

- Excellent transparency and aesthetics.
- High rigidity and toughness.
- Good long-term mechanical performance.
- Unaffected by water.
- High tolerance to thermal changes.
- High dimensional stability.
- Easy to handle and mould.

### Thermal stability

- The maximum recommended service temperature for SAN sheet is 85°C. Higher temperatures may be used for short periods.
- The above value is only valid when the heating medium is air. In water or other liquids, heat transmission is considerably higher and dimensional instability may appear at lower temperatures.
- Sheet that is subject to frequent and sudden changes in temperature may develop micro surface cracks that become larger over time. In this respect SAN sheet is considerably more stable than sheet made from other polymers .

### Stress cracking

- The appearance of cracks in the sheet surface is dependent on the combined action of a chemical agent, temperature, and the level and duration of any stress.
- The Nitrile rubber content of the SAN copolymer has a beneficial effect on the stress cracking resistance of the sheet .

### Weathering

- The ultraviolet component of solar radiation causes degradation of all plastics.
- The degree of degradation depends on the exposure conditions, i.e. the duration of exposure to light, the orientation of the sheet with respect to the sun, the temperature, the humidity, and the intensity of the radiation (geographical location and altitude).
- The ultraviolet additives contained in SAN sheet permit an improvement in behaviour to light exposure and a conservation of properties during years of exposure to outside conditions.

### Applications

- Glazing
- Car window spoilers
- Parts for cold-storage rooms and freezers
- Multi purpose containers
- Control panels
- Audio and video parts
- Emergency batteries
- Bathroom fittings
- Glazing for caravans and garage doors

### Material Characteristics

	METHOD	UNITS	VALUE
<b>PHYSICAL</b>			
Density	ISO 1183	g.cm <sup>-3</sup>	1,08
<b>MECHANICAL</b>			
Tensile Strength @ Yield	ISO 527	Mpa	(*)
Tensile Strength @ Break	ISO 527	Mpa	67
Elongation @ Break	ISO 527	%	2,5
Tensile Modulus of Elasticity	ISO 527	Mpa	3700
Flexural Strength	ISO 178	Mpa	97
Charpy Notched Impact Strength	ISO 179	kJ.m <sup>-2</sup>	1,28
Charpy Unnotched	ISO 179	kJ.m <sup>-2</sup>	17
Rockwell Hardness M / R scale			83/ (*)
Ball Indentation	ISO 2039	Mpa	165
<b>OPTICAL</b>			
Light Transmission		%	86
Refractive Index			1,561
<b>THERMAL</b>			
Max. service temperature		°C	85
Vicat Softening Point - 10N	ISO 306	°C	108
Vicat Softening Point - 50N	ISO 306	°C	105
HDT A @ 1.8 Mpa	ISO 75-1,2	°C	98
HDT B @ 0.45 Mpa	ISO 75-1,2	°C	101
Coefficient of Linear Thermal Expansion x10 <sup>-5</sup>		x10 <sup>-5</sup> . °C <sub>-1</sub>	7

(\*)Test conditions: Total immersion during 1 year at a temperature of 23°.

CHEMICAL RESISTANCE	BEHAVIOUR		
	GOOD	LIMITED	POOR
Mineral Oil (*)	X		
Vegetable Oil (*)	X		
Acetone (*)			X
Acetic Acid (*)		X	
Water	X		
Turpentine (*)	X		
Ammonia			X
Detergents (*)	X		
Ethanol (*)	X		
Petrol (*)	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
Glycerine	X		
Methanol		X	
Toluene (*)			X

(\*)Test conditions: Total immersion during 1 year at a temperature of 23°.

FIRE PERFORMANCE		
COUNTRY	STANDARD	CLASSIFICATION
GERMANY	DIN 4102-1	B2
FRANCE	NPF 92-507	M4