

Osstyrol[®] ABS+PC-SE

HP-PM revision: 05/06

Description

Plastic sheets or foils made of flame-retardant, halogen-free blend of ABS and polycarbonate (PC) with high impact strength and high temperature of deflection especially for indoor use with good thermoforming properties.

Typical Properties

of uncoloured products	Test method	Unit	Value
Mechanical properties			
Yield stress	ISO 527	MPa	65
Tensile strain at yield	ISO 527	%	5
Tensile stress at break	ISO 527	MPa	50
Tensile strain at break	based on ISO 527	%	> 50
Tensile modulus	ISO 527	MPa	2600
Flexural strength	ISO 178	MPa	
Charpy-impact strength 23°C / -30°C	ISO 179/1eU	kJ/m ²	
Izod impact strength 23°C / -30°C	ISO 180/1U	kJ/m ²	NB / NB
Izod notched impact strength 23°C / -30°C	ISO 180/1A	kJ/m ²	40 / 10
Ball indentation hardness	ISO 2039-1	MPa	
Thermal properties			
Vicat-softening point 50N - 50 K/h	ISO 306	°C	
Vicat-softening point 50N - 120 K/h	ISO 306	°C	115
Deflection temperature 1.80 MPa (HDT A)	ISO 75	°C	95
Deflection temperature 0.45 MPa (HDT B)	ISO 75	°C	110
Electrical properties			
Relative permittivity at 100Hz / 1MHz	IEC 60250	-	3,2 / 3,1
Dissipation factor at 100 Hz / 1MHz	IEC 60250	10 Exp. -4	37 / 75
Surface resistivity	IEC 60093	Ohm	> 1E14
Comparative tracking index CTI, A	IEC 60112	Stufe	350
Electric strength	IEC 60243-1	kV/mm	30
Optical properties			
Surface gloss	DIN 67530	%	depends on colour and surface
Flammability			
Flammability UL at thickness = 1,5 mm	UL 94	Class	V-0
Flammability UL at thickness = 2,0 mm	UL 94	Class	5VB
Flammability UL at thickness = 3,0 mm	UL 94	Class	5VA
Other properties			
Density at 23 °C	ISO 1183	g/cm ³	1,18
Water absorption	ISO 62	%	0,2 - 0,5
Recommended part marking	ISO 11469	-	>PC+ABS-FR<

Legend:

NB = no break

Particularities

Due to the favourable combination between mechanical and thermal properties the sheet and foil of ABS+PC-SE are suited for applications especially in the domain of transport, building and electricity. The halogen-free flame-retardant (to DIN/VDE 0472, 815) allows the use for interior of buses, rail vehicles and boats also in public buildings and the electrical sector, for example as conductor rail covers. ABS+PC-SE has passed several international tests on fire-protection e.g. the "German Railway Test" or the "Epiradiateur cabin test". Due to the enclosed PC in ABS+PC-SE the surface properties are little restless than reinforced ABS, but can be thermoformed perfectly.

Note

The information submitted in this publication is based on our current knowledge and experience. Tested are uncoloured products. In view of many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of the suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. In order to check the availability of products please contact us or our sales agency.