

Osstyrol[®] ASA+PC/PMMA

HP-PM revision: 01/12

Description

Sheets or foils made of ASA+PC with coextruded PMMA-surface, especially for the use in vehicle construction.

Product informaton of uncoloured products

	Test method	Unit	ASA/PC	PMMA
Mechanical properties				
Yield stress	ISO 527	MPa	53	72
Tensile strain at yield	ISO 527	%	4,9	4,5
Tensile strain at break	ISO 527	%	> 50	
Tensile modulus	ISO 527	MPa	2300	3200
Flexural strength	ISO 178	MPa	78	125
Charpy impact strength 23°C / -40°C	ISO 179/1eU	kJ/m ²	NB/NB	20
Charpy notched impact strength 23°C / -40°C	ISO 179/1eA	kJ/m ²	60/20	2
Izod notched impact strength 23°C	ISO 180/1A	kJ/m ²		
Ball indentation hardness H358/30	ISO 2039-1	MPa	95	193
Thermal properties				
Vicat softening point VST/B/50	ISO 306	°C	120	103
Vicat softening point VST/A/50	ISO 306	°C	136	
Deflection temperature 1.8 Mpa (HDT A)	ISO 75-2	°C	106	90
Deflection temperature 0.45 Mpa (HDT B)	ISO 75-2	°C	125	95
Electrical properties				
Relative permittivity at 100Hz / 1MHz	IEC 60250		3.4/3.2	3.2/2.9
Dissipation factor at 100 Hz / 1MHz	IEC 60250	Ohm cm	60/150	0.04/0.03
Surface resistivity	IEC 61340	Ohm	> 10 ¹³	10 ¹⁴
Volume resistivity	IEC 61340	Ohm cm	> 10 ¹²	10 ¹⁵
Electric strength K20/P50	IEC 60243-1	kV/mm	38	60
Optical strength				
Surface gloss	DIN 67350	%		50-100
Flammability				
Flammability UL at thickness d=1.6 mm	UL 94	Class	HB	HB
Testing of electrical insulating material, method FH	IEC 60707	Level	FH3-25mm/min	FH3-35mm/min
Testing of electrical insulating material, method BH	IEC 60707	Level	BH3-15mm/min	BH3-30mm/min
Testing of car industry's materials (d>1mm)	FMVSS 302		Plus	Plus
Other properties				
Density at 23 °C	ISO 1183	g/cm ³	1,15	1,18
Water absorption, method A	DIN 53495/1	%	0.30	0.8
Moisture absorption, at standard conditioning atmosphere		%	0.25	0.3

Particularities

ASA+PC/PMMA is especially used for motor vehicle exterior e. g. for roof-modules or mudguards and does not result in gloss reduction or chalking of especially dark colour matchings after a UV-exposure respectively weathering (according to DIN 53387-1-A-X xenotest included sprinkling 5000 h) unlike UV-stabilised ABS or PC-PBT-bends. This relates to typical demands both for de-waxing of new vehicles and for vehicles that are cleaned after the influence of actinism. An additional varnishing is generally not necessary.

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.