

Osstyrol[®] ABS/ASA

HP-PM revision: 01/12

Description

Plastic sheets or foils made of ABS with a co-extruded ASA cover sheet. Different properties can be produced as to customers' requirements. Therefore, the below-mentioned values shall be considered as example figures only

Product information of uncoloured products

	Test method	Unit	ASA (OS)	ABS (US)
Mechanical properties				
Yield stress	ISO 527	MPa	47	38
Yield strain	ISO 527	%	3,3	2,5
Strain at break	ISO 527	%	12	> 9
Tensile modulus	ISO 527	MPa	2200	1900
Flexural strength	ISO 178	MPa	65	56
Charpy-impact strength 23°C / -30°C	ISO 179/1eU	kJ/m ²	270/150	210/140
Charpy-notched impact strength 23°C / -30°C	ISO 179/1eA	kJ/m ²	30.0/3.0	30.0/13.0
Izod-notched impact strength 23°C / -30°C	ISO 180/1A	kJ/m ²	285 / -	36 / 14
Ball indentation hardness	ISO 2039-1	MPa	70	74
Thermal properties				
Vicat-softening point VST/B/50	ISO 306	°C	102	92
Vicat-softening point VST/A/120	ISO 306	°C	104	99
Deflection temperature 1.8 Mpa (HDT A)	ISO 75-2	°C	96	94
Deflection temperature 0.45 Mpa (HDT B)	ISO 75-2	°C	101	100
Electrical properties				
Dielectric constant at 100Hz / 1MHz	IEC 60250			
Dissipation factor at 100 Hz / 1MHz	IEC 60250	Ohm cm		
Volume resistivity	IEC 60250	Ohm x m		
Dielectric strength K20/P50	IEC 60243-1	kV/mm		
Optical properties				
Surface gloss	DIN 67350	%	depends on colour and surface	
Flammability				
UL94 rating at 1.6 mm thickness	UL 94	class	HB	HB
Electrical insulation materials (method BH)	IEC 60707	class		
Electrical insulation materials (method FH)	IEC 60707	class		
Automotive materials (thickness d= 1 mm)	FMVSS 302	class		
Other properties				
Density at 23 °C	ISO 1183	g/cm ³	1,07	1,03-1,05
Water absorption, method A	ISO 62	%	0,45	1,03
Moisture absorption (Equilibrium)	ISO 62	%	0,30	0,21

Particularities

ABS/ASA is used as an alternative for UV-stabilized ABS or ABS/PMMA. On the basis of the copolymer styrene-acrylonitrile the cover sheet of ABS/ASA contains instead of butadiene rubber a special acrylester rubber as siziness component, which has not any weak point in form of double bonds. Therefore, ABS/ASA shows much more resistance to corrosion caused by temperature and sun light. A higher chemical resistance of the surface and better mechanical properties of the compound in comparison with ABS/PMMA should be emphasized.

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.