NIRVANA PLASTIX
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Technical datasheet for: ABS/PMMA

Sheets and foils, produced from ABS with PMMA toplayer. Different properties can be produced as to customers' requirements. Therefore, the below-mentioned values shall be considered as example figures only.

Product inform	Test method	Unit	PMMA (OS)	ABS (US)
Mechanical properties				
Yield stress	ISO 527	MPa		38
Yield strain	ISO 527	%	5	2,5
Strain at break	ISO 527	%		> 9
Tensile modulus	ISO 527	MPa		1900
Flexural strength	ISO 178	MPa	110	56
Charpy-impact strength 23℃ / -30℃	ISO 179/1eU	kJ/m²	20 / -	210 / 140
Charpy-notched impact strength 23℃ / -30℃	ISO 179/1eA	kJ/m²	2,0 / -	30 / 13
Izod-notched impact strength 23℃ / -30℃	ISO 180/1A	kJ/m²	1,8 / -	36 / 14
Ball indention hardness	ISO 2039-1	MPa	180	74
Thermal properties				
Vicat-softening point VST/B/50	ISO 306	℃	102	92
Vicat-softening point VST/A/120	ISO 306	℃	108	99
Deflection temperature 1.8 Mpa (HDT A)	ISO 75-2	℃	97	94
Deflection temperature 0.45 Mpa (HDT B)	ISO 75-2	℃	100	100
Electrical properties				
Dielectric constant at 100Hz / 1MHz	IEC 60250			
Dissipation factor at 100 Hz / 1MHz	IEC 60250	Ohm cm		
Volume resistivity	IEC 60250	Ohhm x m		
Dielectric strength K20/P50	IEC 60243-1	kV/mm		
Optical properties				
Surface gloss	DIN 67350	%	50-100	50-100
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			
Other properties				
Density at 23 ℃	ISO 1183	g/cm³	1,18	1,03-1,05
Water absorption, method A	ISO 62	%		
Moisture absorption (Equillibrium)	ISO 62	%	0,30	0,21

Particularities

ABS/PMMA offers a combination of superior properties being required for numerous applications in the fields of automobile manufacturing, engineering and building, lighting engineering, advertising and in sanitary and domestic sectors. Excellent transparency and brilliance, high weathering and ageing resistance as well as a very good surface hardness and abrasion resistance.

Note