HIGH IMPACT POLYSTYRENE

GENERAL Property	Method	Units	Glossy/Matt	Matt/Matt
Density	EN ISO 1183	g/cm³	1,06	

MECHANICAL Property	Method	Units	Glossy/Matt	Matt/Matt
Flexural modulus	EN ISO 178	MPa	1850	1800
Flexural strength	EN ISO 178	MPa	34	32
Tensile modulus	EN ISO 527-2	MPa	1730	1670
Tensile strength	EN ISO 527-2	MPa	24	20
Elongation at break	EN ISO 527-2	%	2,9	4,2
Stress at break	EN ISO 527-2	MPa	18	16
Ball indentation hardness	EN ISO 2039-1	N/mm²	80	
Charpy Notched – glossy side impacted	EN ISO 179	kJ/m²	9	-
Charpy Notched – matt side impacted	EN ISO 179	kJ/m²	6	10

THERMAL Property	Method	Units	Glossy/Matt	Matt/Matt
Vicat softening temperature (B 50)	EN ISO 306	°C	92	91
Heat defection temperature (A)	EN ISO 75-2	°C	82	84
Linear thermal expansion	DIN 53752	K^{-1}	$80x10^{-6}$	
Service temperature continuous use	DIN 52612	°C	70	
Thermal conductivity	EN ISO 11501	W/mK	0,16	
Dimensional change of heating	EN ISO 15015	%	5	5,5

ELECTRICAL Property	Method	Units	
Volume resistivity	IEC 93	Ω.cm	$>10^{16}$
Surface resistivity	IEC 93	Ω	$>10^{13}$
Dielectric Strength	IEC 243-1	KV/mm	155
Dielectric constant at 100Hz - 1 MHz	IEC 250		2,5
Disipation factor at 100Hz - 1 MHz	IEC 250		$>10^{-4}$

PROCESSING

☑ Sawing	☒ Flame polishing	☑ Vacuum forming
☑ Drilling	☒ Diamond polishing	☑ Drape forming
☑ Milling	☒ Cold bending	☑ Glueing
☑ Lasercutting	☑ Warm bending	☑ Printing
☑ Laser engraving	☑ Oven curving	

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