

# POLIESTIRENO BLANCO

## 1. PRODUCT IDENTIFICATION

---

The HIPS sheets typically have high impact strength and can be offered in a matt finish (FMM types) or in a gloss finish (FMG types) at the front side.

The high gloss effect is obtained through co-extrusion of a GPPS (general purpose polystyrene) layer on top of the HIPS. In addition to sanitary and standard colours, colour matching can be made to order.

## 2. CHARACTERISTICS

---

- Excellent low temperature high impact strength
- Smooth surface finish, either matt or glossy surface
- Smart and pin-seal emboss available
- Extremely suitable for thermoforming applications
- Good electrical properties

## 3. APPLICATIONS

---

- Displays
- Screen printing
- Refrigerators
- Sanitary ware
- Mobile homes and caravan fittings
- Packaging

## TECHNICAL DATA

### ■ GENERAL

Property	Method	Unit		
			Glossy/Matt	Matt/Matt
Density	ISO 1183	g/cm <sup>3</sup>	1,05	1.05
Burning resistance	UL standard 94		94 HB	94 HB

### ■ MECHANICAL

Property	Method	Unit		
			Glossy/Matt	Matt/Matt
Flexural modulus	ISO 178	MPa	1850	1800
Flexural strength	ISO 178	MPa	34	32
Tensile modulus	ISO 527-2	MPa	1730	1670
Tensile strength	ISO 527-2	MPa	24	20
Elongation at break	ISO 527-2	%	2.9	42
Stress at break	ISO 527-2	MPa	18	16
Ball indentation hardness	ISO 2039-1	N/mm <sup>2</sup>	80	80
Charpy notched glossy side impacted	ISO 179-1/1fA	KJ/m <sup>2</sup>	9	-
Charpy notched matt side impacted	ISO 179-1/1fA	KJ/m <sup>2</sup>	6	10

### ■ THERMAL

Property	Method	Unit		
			Glossy/Matt	Matt/Matt
Vicat temperature (B 50)	ISO 306	°C	92	91
Heat deflection temp. (A)	ISO 75-2	°C	82	84
Linear thermal expansion	DIN 53752	K <sup>-1</sup> x10 <sup>-5</sup>	8	8
Service temperature - continuous use	DIN 52612	°C	70	70
Thermal conductivity	ISO 11501	W/mK	0.16	0.16
Dimensional change on heating (4 mm)	ISO 14631	%	5	5.5

### ■ ELECTRICAL (raw material specifications)

Property	Method	Unit		
			Glossy/Matt	Matt/Matt
Volume resistivity	IEC 93	Ωcm	>10 <sup>16</sup>	>10 <sup>16</sup>
Surface resistivity	IEC 93	Ω	>10 <sup>13</sup>	>10 <sup>13</sup>
Dielectrical strength	IEC 243-1	kV/mm	155	155
Dielectrical constant at 100Hz-1MHz	IEC 250		2.5	2.5
Dissipation factor at 100Hz-1MHz	IEC 250		10 <sup>-4</sup>	10 <sup>-4</sup>

Note: all mentioned data is based on extruded sheets in a thickness of 4 mm

These technical data of our products are typical ones; the actually measured values are subject to production variations.