

# Technical Data Sheet ABS HB with finishing

**Feedstock:** Acrylonitrile-Butadiene-Styrene

**Mechanical properties:**

*very high dielectric strength*

Green density <sup>1</sup>	ISO 1183	≈1,05-1,12	g/cm <sup>3</sup>
Yield stress	ISO 527	≥ 28	(MPa) N/mm <sup>2</sup>
Expansion at yield stress	ISO 527	> 10 - 50	%
Impact Charpy +23°C notched	ISO179	≥ 9	kJ/m <sup>2</sup>
Impact Charpy -30°C notched	ISO179	≥ 5	kJ/m <sup>2</sup>

<sup>1</sup> This value can slightly vary as a result of pigmentation or addition.

**Thermal properties:**

Permanent service temperature		80	°C
Vicat Softening Point B/50	ISO 306	≥ 92	°C
Heat Distortion Temperature (A)	ISO 75	≥ 87	°C
Thermal conductivity	ASTM C177	0,16	W/mK

**Electrical properties:**

Specific volume resistivity	DIN EN 61340-5-1	10 <sup>13</sup>	Ωcm
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**Chemical resistance (ABS in general):**

resistant <sup>2</sup> :	plant and animal mineral oils; alcohols; diluted acids; concentrated hydrochloric and phosphoric acid
not resistant:	solvents <sup>2</sup> ; concentrated sulphuric and nitric acid <sup>3</sup>
dissolves in <sup>3</sup> :	esters; ketones; ethylene dichloride; Aceton

<sup>2</sup>maschinenbau-wissen.de

<sup>3</sup>resinex.de

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## Flammability support material:

Flammability rating	UL 94	HB
UL file numbers	E162447; E106635; E115797; E39437; E108538	
Glow wire test 650 °C	IEC 695-2-1	-

## Designation in technical drawings, Example with PMMA topcoat:

### ABS24 + PMMA schwarz - 3mm

ABS24	= material and colour (black Acrylonitrile-Butadiene-Styrene)
+PMMA	= coat of PMMA (smooth, gleaming)
schwarz	= black
3mm	= thickness

## Designation in technical drawings, Example with Decorfilm:

### ABS24 GE03 alu-brushed gl.

ABS24	= material and colour (black Acrylonitrile-Butadiene-Styrene)
GE03	= fabric und thickness (fine structured, 3mm)
alu-brushed gl.	= colour décor film (alu-brushed, gleaming)

## Colours with PMMA topcoat (UL 94 - HB):

		3mm	4mm	5mm	6mm
ABS 24 PMMA	black	X		X	
ABS 35 PMMA	white	X	X		X
ABS PMMA	grey metallic	X	X		X

## Colours with Decorfilm (no UL Listing):

		3mm	4mm	5mm	6mm
ABS 24 alu-brushed	support material: <b>black</b> décor film: alu-brushed <b>gleaming</b>	X	X	X	
ABS 24 alu-brushed	support material: <b>black</b> décor film: alu-brushed <b>matt</b>	X	X		X

## Printability:

printable

Current state: 06.01.2020