



# Black Solar ABS 127

## SOLAR ABSORBER MATERIAL

### OPTICAL PROPERTIES

	Typical	Standards
SOLAR ABSORPTION $\alpha_{sol}$	93 % $\pm$ 2 %	ASTM E 891-87 and ISO 9845-1
COLOUR VALUES – a*	-2 < a < 2	CIE Lab (D65 / 10°)
COLOUR VALUES – b*	-4 < b < +4	CIE Lab (D65 / 10°)

### TECHNICAL DATA

COATING METHOD	LACQUERING	COIL COATING
Surface 1 – ABSORBER SIDE	BLACK SOLAR LACQUER	approx. 10-20 $\mu$ m thickness
Surface 2 – BACK SIDE	Primer (optional)	approx. 2-3 $\mu$ m thickness

### MECHANICAL STABILITY

	Value	Standards
CROSS HATCH TEST	No more than 2 of 100 test fields delaminating	ISO 2409 / ASTM D 3359
ADMISSIBLE BENDING RADIUS	$\geq$ 10 mm	
SCRATCH RESISTANCE	good	
Fingerprints	not visible	

### SUBSTRATE: MECHANICAL PROPERTIES

	Value	Standards
ALUMINIUM ALLOY	EN-AW 3000 series	EN 573-3
TENSILE STRENGTH	$\geq$ 150 N/mm <sup>2</sup>	EN 485-2
YIELD STRENGTH 0.2%	$\geq$ 120 N/mm <sup>2</sup>	EN 485-2
ELONGATION A <sub>50</sub>	> 1 %	EN 485-2

### SUBSTRATE: PHYSICAL PROPERTIES

	Value	Standards
THERMAL CONDUCTIVITY	> 160 W/mK	
Density	2.71 g/cm <sup>3</sup>	



#### AVAILABLE SIZES

THICKNESS	0.3mm - 0.5mm
WIDTH	≤ 1250mm

The material is available as coils or sheets on customer demand.

All information provided is based on up-to-date values where possible. Optical values are average results from 0.4mm substrate and are published for guidance only; they may vary according to raw material thickness. For more detailed information please contact our technical sales department. Physical characteristics of the materials are in accordance with EN (European Committee for Standardization).

#### **General tolerance**

Gauge tolerance: ± 0.03 mm  
Width tolerance: ± 0.15 mm  
Length-cut sheets: ± 1 mm/m

#### **Note**

All materials listed above can be delivered in various sizes and shapes according to customer requirements. Products with protective tape are guaranteed for six months after delivery if they are stored in a conditioned room (temperature 20-30°C and relative humidity 50-60%) and kept away from sunlight and any heating source. Protective tape is not UV resistant.

Update 8<sup>th</sup> August 2022 - Rev. 03

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