

Makrofol® LM297 H-M 040007

Description and Application Information

Makrofol® LM297 H-M 040007 is a lens type light shaping film that has especially been designed for LCD backlight applications. It is an extrusion film with anti-dust feature based on Makrolon® polycarbonate resin from Covestro. Its unique polynominal structured surface (H-surface) ensures high-end performance regarding homogenization, transmittance and processability. The surface structure of the reverse side is fine matte (M-surface).

Makrofol® LM297 H-M 040007 is available in standard thicknesses of 130, 180 and 280 microns. Other thicknesses on request.

Typical applications are televisions, monitors and backlight displays.

Preliminary guide data

General properties			
Property	Value	Unit of measurement	Method
Density	1,2	g/cm ³	ISO 1183, 20°C, Method C
Thickness	130, 180, 280	µm	acc. to ISO 4593, 23°C
Gloss		Digits	ISO 2813, Angle 60°, backprinted black
M-surface	10 to 90		
Roughness R3z		µm	acc. to ISO 4287/88, Lm12,5mm, lc 2,5mm, Average over 3-5 measurements
M-surface	< 4		



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Optical properties			
Property	Value	Unit of measurement	Method
Luminous transmittance		%	ISO 13468-2
130 µm, H-surface	85		
180 µm, H-surface	90		
280 µm, H-surface	91		
450 µm, H-surface	88		
Haze		%	ASTM D1003
130 µm, H-surface	99		
180 µm, H-surface	98		
280 µm, H-surface	96		
450 µm, H-surface	95		
Reflectance		%	ASTM E 1331
130 µm, H-surface	13		
180 µm, H-surface	9		
280 µm, H-surface	9		
450 µm, H-surface	9		
Thermal properties			
Property	Value	Unit of measurement	Method
Relative temperature index	80	°C	UL 746 B
Electrical properties			
Property	Value	Unit of measurement	Method
Surface resistivity	10 ¹¹ to 10 ¹⁴	Ohm	following DIN IEC 60093
Other properties			
Property	Value	Unit of measurement	Method
Water absorption	approx. 0,2	%	following ISO 62

