

MAKROLIFE® SL

**AN OUTSTANDING
CO-EXTRUDED
POLYCARBONATE SHEET
WITH A DOUBLE-SIDED HIGHLY
PROTECTIVE UV-ABSORBER**

In MAKROLIFE® SL the high impact strength of polycarbonate has been combined with extra protection against UV-radiation and yellowing, which makes it excellent for outdoor applications where glass is used today. The product provides a 50% weight saving compared to glass.

ARLA PLAST MAKROLIFE® SL BECAUSE...

- Better UV protection than standard MAKROLIFE®
- Outstanding Surface quality for polycarbonate sheets
- Extended thickness range
- Advanced co-ex UV protection system
- Virtually unbreakable and high impact resistance
- Fire performance
- Thermo and cold formable
- Available in COLORADO™ UV, ANTI-REFLEX™ and textured versions

QUALITY

MAKROLIFE® SL has a unique custom made Arla Plast tint which grants the user an outstanding high clarity sheet. The surface quality is guaranteed by our ability to exactly control the distribution of the UV protection layer.

EXPERIENCE

In 1994 Arla Plast pioneered the UV-protection co-extrusion technique in Europe with the MAKROLIFE® sheet. This has given Arla Plast AB unparalleled experience with UV protected sheets.

IMPACT STRENGTH

MAKROLIFE® SL has more than 10 times the impact strength of high impact PMMA and more than twice the impact strength of PETG, yet is very easy to thermoform or cold bend into complex shapes.

APPLICATION AREAS

Ski Lifts, stadia, atria, continuous glazing, cladding, partitioning, safety and security glazing, barrel vaults, roof lights, wide span architectural glazing, bus shelters, poster protection, skylights, greenhouses, covered walkways and sport arenas. MAKROLIFE® SL makes the industrial standard in applications for vending machines, lamps, nurseries, public telephones, stairs, sound-protections walls and many others.

ALSO AVAILABLE IN

COLORADO™ UV (Transparent colours), ANTI-REFLEX™, Textured Versions (ICET™, TEX™, grain 35)



MAKROLIFE® SL

DELIVERY PROGRAM	MAKROLIFE® SL
Standard size	2050 x 3050 mm
Max. width uncut edges	2110 - 2150 mm
Max. length	7500 mm
Thickness range	2 - 15 mm
Texture	ICETM UV, TEXTM UV, ANTI-REFLEXM UV
Colours	All COLORADO™ colours

Property ^{a)}	Unit	Value	Standard
Physical Properties			
Density	g/cm ³	1,20	ISO 1183
Light transmission (Light source D65, thickness 1 mm)	%	88	DIN 5036, T.3
Refractive index		1,586	ISO 489
Moisture absorption 24 hours, 23°C, 50% RH	%	0,15	
Mechanical Properties			
Tensile strength at yield (at break)	N/mm ²	63 (70)	ISO 527
Elongation at yield (at break)	%	6 (110)	ISO 527
Elastic modulus	N/mm ²	2300	ISO 527
Flexural modulus	N/mm ²	2300	ISO 178
Charpy unnotched impact strength +23°C	kJ/m ²	no break	ISO 179/2D
Charpy unnotched impact strength -40 °C	kJ/m ²	no break	ISO 179/2D
Izod notched impact strength +23°C	kJ/m ²	65	ISO 180/1A
Izod notched impact strength -30 °C	kJ/m ²	10	ISO 180/1A
Rockwell Hardness		M70	ISO 2039-2
Thermal Properties			
Linear coefficient of thermal expansion (23-80 °C)	10 ⁻⁴ x K ⁻¹	0,70	
Heat deflection temperature, HDT A (1,8 N/mm ²)	°C	132	ISO 75
Heat deflection temperature, HDT B (0,45 N/mm ²)	°C	142	ISO 75
Vicat temperature VST/B 120	°C	149	ISO 306
Vicat temperature VST/B 50	°C	148	ISO 306
Specific heat capacity, Cp	kJ/kg, K	1,17	
Thermal conductivity	W/m, K	0,21	DIN 52612
Electrical Properties			
Volume resistivity, dry	x cm	10 ¹⁶	IEC 60093
Surface resistivity, dry		10 ¹⁶	IEC 60093
Dielectric strength, dry 1 mm	kV/mm	30	IEC 60243
Dielectric constant, dry, 50 MHz		3,0	IEC 60250
1 MHz		2,9	
Dissipation factor (tan δ), dry, 50 MHz		0,001	IEC 60250
1 MHz		0,010	

a) Properties reported here are typical polycarbonate values.

Arla Plast makes no representation that the material in any particular shipment will conform exactly to the values give.

The above information is based upon experience and given in good faith. Due to many factors which are outside our knowledge and control, no warranty is given or is to be implied with respect to such information.

Detailed product specification and technical manual/information is available on request.

Please note: Minimum quantities vary by the width requirements and product options. Special thicknesses and sizes are available upon request. Please contact the local area office for more information.