



PRODUCT DATA SHEET

Makrolon® FR

Solid Polycarbonate Sheet

Your benefits:

- excellent fire rating
- resistance to a wide range of temperatures
- extreme impact strength

Makrolon® FR sheets are flame retardant, UV stabilized polycarbonate sheets. They offer high impact strength and superior dimensional stability. Makrolon® sheets resist wide range temperatures of -40°C to 120°C and exhibit high clarity.

Makrolon® FR sheets have excellent fire ratings. They are UL94-V0 rated as of 2mm thickness.

Makrolon® FR DQ is a flame retardant diffusion sheet with a cool color appearance, even when the LEDs are in off mode.

Applications

Typical applications for **Makrolon® FR** sheets include:

- electro technical components and guards and lighting fixtures which have to comply with UL94 V-0.
- any application where improved fire behavior is needed for fire safe solutions.

The sheets offer protection against involuntary breakage and willful destruction. **Makrolon® FR** sheets can be thermoformed, cold-curved and machined with ease.

Properties	Test Method	Unit	Typical values
Density	ISO 1183-1	g/cm ³	1.2
Coefficient of heat expansion	ISO 11359-1,-2	10 ⁻⁴ /K	0.7
Tensile Strength	ISO 527-1	MPa	> 55
Elongation	ISO 527-1	%	> 50
Flexural modulus	ISO 178	MPa	2350
Flexural strength	ISO 178	MPa	90
Izod notched impact strength	ISO 180-A	kJ/m ²	70P
Heat deflection temperature	ISO 75-1,-2 (1.8MPa)	°C	127
VICAT Temperature	ISO 306	°C	145
Fire rating	UL 94	class	V-0 (≥2mm)

The mechanical properties were measured on sheets of 4 mm or 3 mm thickness flat sheet

Available dimensions:

Makrolon® FR * clear: available in thicknesses of 2.0~16.0 mm in the format of 1220x2440mm.

Makrolon® FR DQ *: in 2,3mm sheet thickness in the format of 1220x2440mm.

*Other sizes, colors or thickness are available on request.

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Light transmittance :

Test Method according to ASTM D 1003

The stated thicknesses are not all available as standard. Please ask us for more information.

The stated values are typical values only

Grade	color	code	thickness (mm)				
			2.0	3.0	4.0	5.0	6.0
Makrolon® FR	clear	000	88.0	87.0	86.0	85.0	84.0
Makrolon® FR DQ*	cool	1Y3	60/70/80	55			

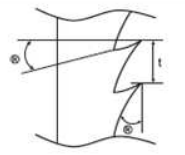
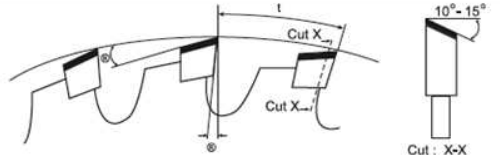

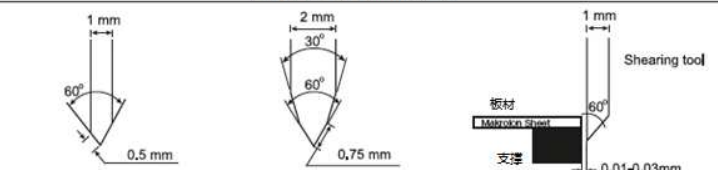
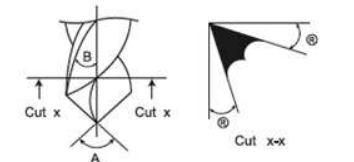
*other light transmissions are available on request

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Cutting instruction:

<p>带锯</p> 	<p>圆锯：用于厚度大于2mm以上的产品</p> 																
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<p>切割和钻孔的进给和速度的更多信息，请参考加工指南</p>																	



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