Product data sheet, November 2026

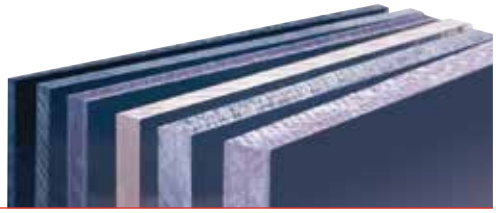
Exolon® AR

Abrasion-resistant solid polycarbonate sheet

I Line
Innovative

Your benefits:

- extreme impact strength
- good abrasion resistance
- excellent weathering resistance
- high clarity



Exolon® AR sheet is an abrasion and enhanced UV resistant polycarbonate sheet that offers glasslike hardness coupled with the impact strength of standard polycarbonate. Additionally, **Exolon® AR 8099** offers on both surfaces enhanced resistance against yellowing and hazing for an extended service life in high profile architectural glazing. **Exolon® AR 7099** is a one sided hardcoated sheet which can be used for lamination and printing on the uncoated side.
Exolon® AR has a 10-years warranty against breakage and 7-years warranty against delamination and weathering.

Applications:
Typical applications for **Exolon® AR** sheet include transparent sound barriers, school and hospital shelter glazing. **Exolon® AR** is also used extensively in correctional and psychiatric facilities. Additionally, the product performs well for view windows and machine guards in harsh chemical environments. Due to its scratch-resistant coating, **Exolon® AR** cannot be formed like other **Exolon®** sheets.

	Test Conditions	Typical values[1]	Unit	Standard
PHYSICAL				
Density		1200	kg/m³	ISO 1183-1
Water absorption saturation	water at 23 °C	0.30	%	ISO 62
Water absorption equilibrium	23 °C, 50% relative humidity	0.12	%	ISO 62
Refractive index	Procedure A	1.587	–	ISO 489
MECHANICAL				
Tensile modulus	1 mm/min	2350	MPa	ISO 527-1,-2
Yield stress	50 mm/min	› 60	MPa	ISO 527-1,-2
Yield strain	50 mm/min	6	%	ISO 527-1,-2
Strain at break	50 mm/min	120	%	ISO 527-1,-2
Flexural modulus	2 mm/min	2350	MPa	ISO 178
Flexural strength	2 mm/min	90	MPa	ISO 178
Taber abrasion resistance	Δ haze after 100 cycles (500 g CS 10F)	1 – 4	%	ASTM D1044 &
	after 500 cycles	4 – 9	%	ANSI Z26.1
THERMAL				
Vicat softening temperature	50 N, 50°C/h	148	°C	ISO 306
Thermal conductivity	23°C	0.20	W/(m.K)	ISO 8302
Coefficient of linear thermal expansion	23 to 55°C	0.65	10^{-4}/K	ISO 11359-1, -2
Temperature of deflection under load	1.80 Mpa	128	°C	ISO 75-1, -2
Temperature of deflection under load	0.45 Mpa	140	°C	ISO 75-1, -2

[1] These values are measured on injection molded samples, and are not intended for specification purposes.

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Ideas, innovative, intelligent, interesting... Exolon Group i-line represents the next generation of quality products. This seal guarantees innovative and intelligent first-class solutions at all times for a multitude of requirements.

Light Transmission:
Test Method according to EN 410.
The stated thicknesses are not all available as standard. Please ask us for more information.
The stated values are typical values only.

Light transmission in %	**3**	**4**	**5**	**6**	**8**	**10**	**12**	**15**
Exolon® AR clear 8099/ 7099	88	87	87	86	85	83	82	80
Exolon® AR bronze 8850	50	50	50	50	50			

Available sizes:
Exolon® AR is available in thicknesses of 3 – 15 mm and in the following sizes;
other sizes, colors and sheet thicknesses on request.

Colors:
Exolon® AR clear 8099/ 7099
Exolon® AR bronze 8850

Sizes:
3,000 x 2,000 mm
3,000 x 2,000 mm

Permanent Service Temperature:
The permanent service temperature without load is approx. 120°C.

Fire Rating:

Country	**Standard**	**Rating**	**Thickness**	**Colour**
Europe	EN13501-1	C s3 d0	2-6 mm	clear 8099
France	NFP 92-501&505 NFF 16-101&102	M2 F2	2 - 12 mm 2 - 12 mm	clear 8099 clear 8099
USA	UL 94	V2 HB V0	0.75 - 1.4 mm ≥ 1.5 mm ≥ 10 mm	all colours all colours clear 8099

Impact Resistance:

Country	**Standard**	**Rating**	**Thickness**	**Colour**
Europa	DIN EN ISO 23125 DIN EN 12417	A2 - C2 86 - 149 m/s	4 - 12 mm 4 - 12 mm	clear 8099 clear 8099

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