

Exolon® Titan

Solid polycarbonate sheet



Your benefits:

- extreme impact strength
- C3 Classification according to DIN EN ISO 23125
- thermoformable

Solid **Exolon® Titan** sheets are clear, polished polycarbonate sheets. They offer extreme impact strength that exceeds the physical properties of other products of their class. **Exolon®** sheets resist temperatures of -100 to +120 °C, exhibit high optical clarity and have a good fire rating.

Applications:

Typical applications for **Exolon® Titan** sheets include machine guards.

The sheets offer protection against involuntary breakage and wilfull destruction. **Exolon® Titan** sheets can be thermoformed, cold-curved and machined with ease.

	Test Conditions	Typical values ⁽¹⁾	Unit	Standard
Physical				
Density		1200	kg/m ³	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
Charpy impact strength	23 °C, unnotched	non-break	kJ/m ²	ISO 179-1eU
Charpy impact strength	23 °C, 3 mm, notched	80P	kJ/m ²	ISO 179-1eA
Izod impact strength	23 °C, 3.2 mm, notched	70P	kJ/m ²	ISO 180-A
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
Electrical				
Electrical strength	1 mm	34	kV/mm	IEC 60243-1
Volume resistivity		1E14	Ohm.m	IEC 60093
Surface resistivity		1E16	Ohm	IEC 60093
Relative permittivity	100 Hz	3.1	-	IEC 60250
Relative permittivity	1 MHz	3.0	-	IEC 60250
Dissipation factor	100 Hz	5 · 10 ⁻⁴	-	IEC 60250
Dissipation factor	1 MHz	95 · 10 ⁻⁴	-	IEC 60250

⁽¹⁾ These values are measured on injection molded samples, and are not intended for specification purposes

Exolon® Titan

Solid polycarbonate sheet



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 DIN 5036.
The stated values are typical values only.

Light transmission %	20
Exolon® Titan clear 099	76

Available sizes: Exolon® Titan is available in 20 mm thickness and in the following size; other sizes and colors on request.

Colors: Exolon® Titan clear 099
Sizes (standard): 3,050 x 2,050 mm

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

Machine guards Classification:

Country	Standard	Rating	Thickness	Colour
Europe	DIN EN ISO 23125	C3	20 mm	clear 099
	DIN EN 12417 / EN ISO 16090-1	175 m/s	20 mm	clear 099



Exolon Group NV
Wakkensesteenweg 47
8700 Tielt

Belgium

www.exolongroup.com
sales@exolongroup.com

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, information and recommendations to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Exolon Group. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

Makrolon® is a registered trademark, owned and licensed by Covestro Group