



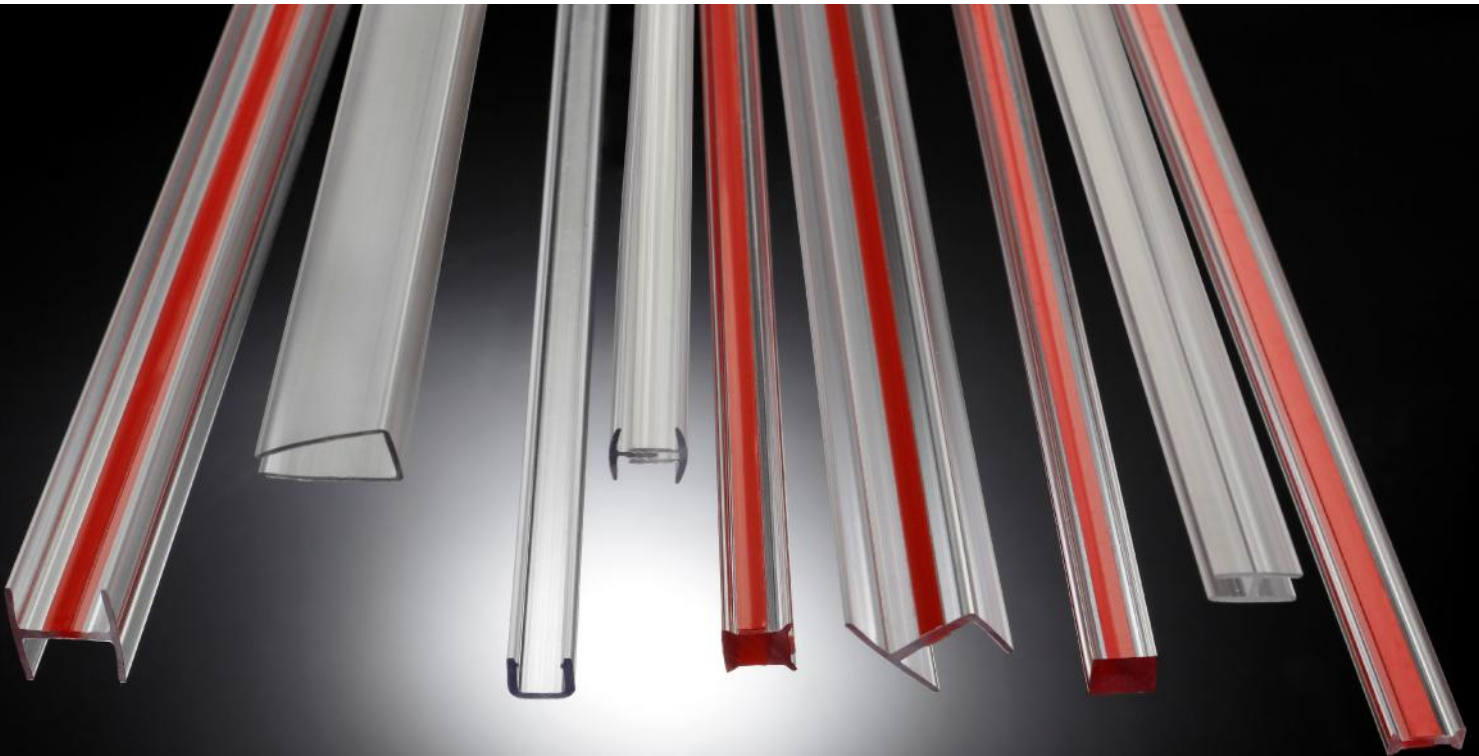
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## **KUNSTSTOFFPROFILE FÜR BAUWESEN**

**Technische Illustrationen sind beispielhafte Schemadarstellungen.  
Technische Änderungen sind vorbehalten**

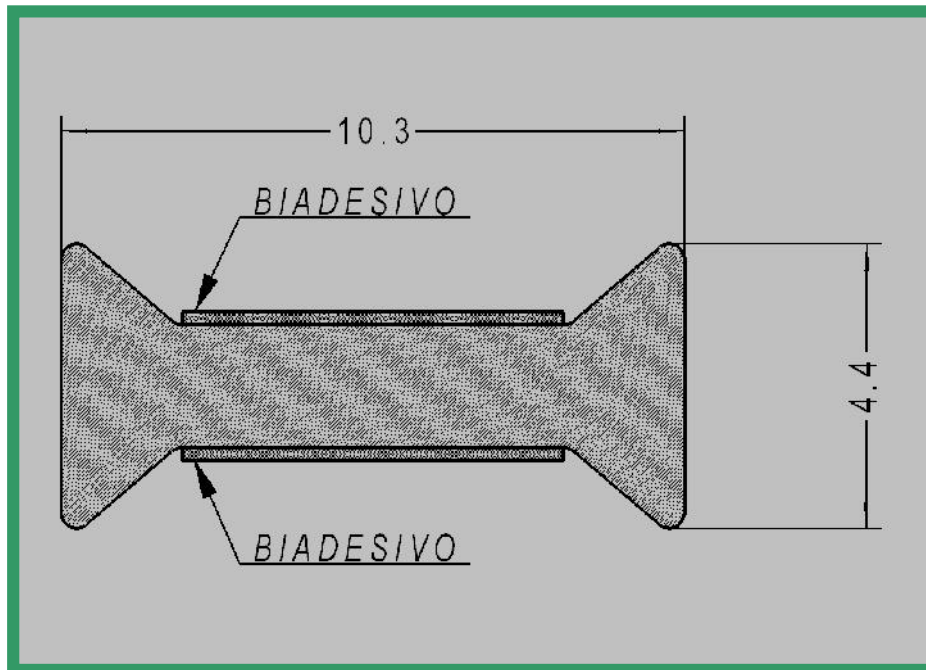


## GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE

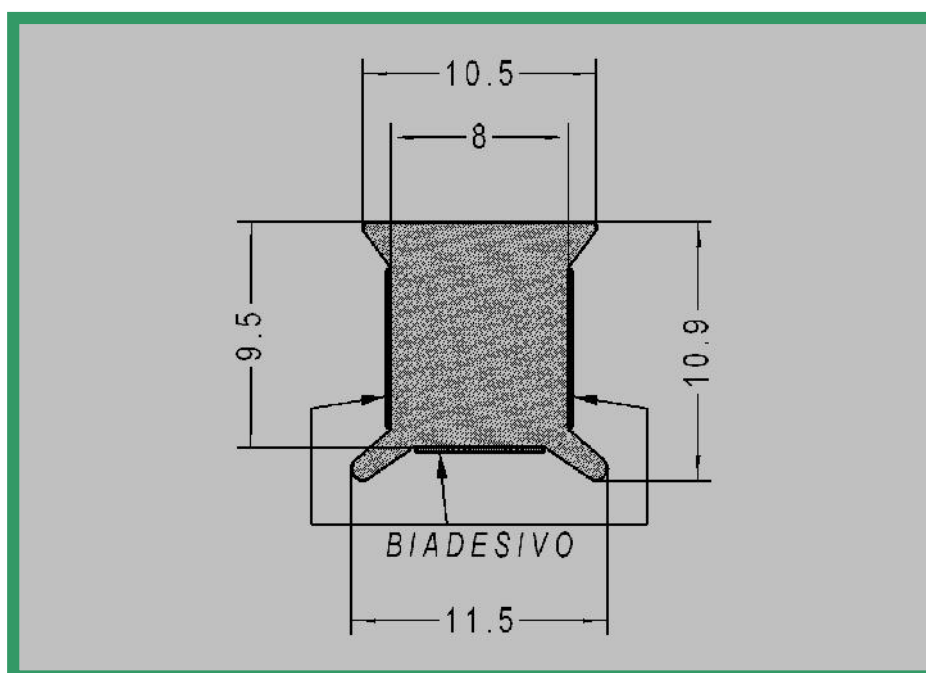


## GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE

**Profil 1010.17**  
**Material : POLYCARBONAT GLASKLAR**

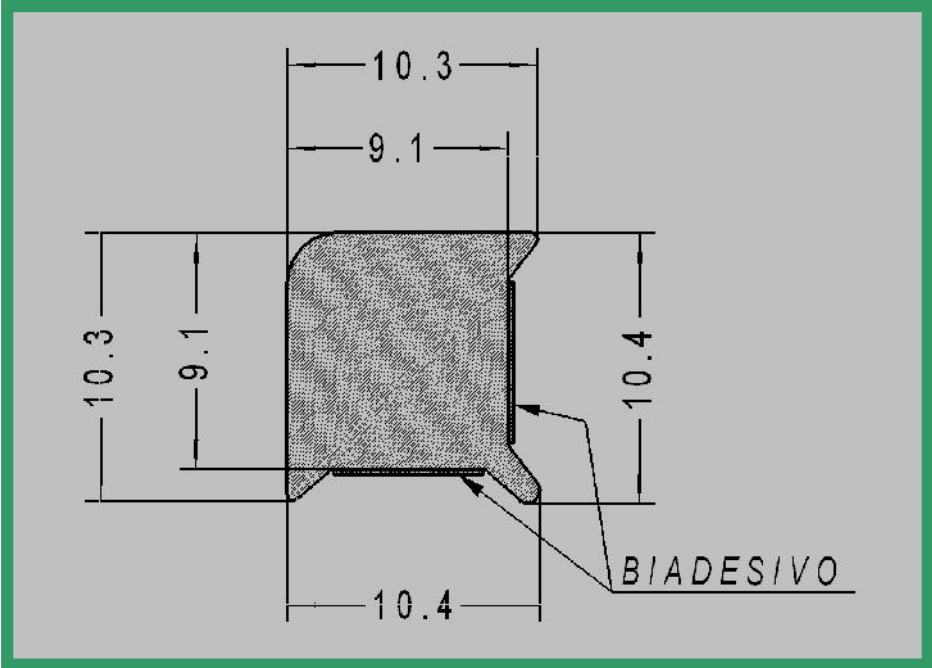


**Profil 1010.18**  
**Material : POLYCARBONAT GLASKLAR**

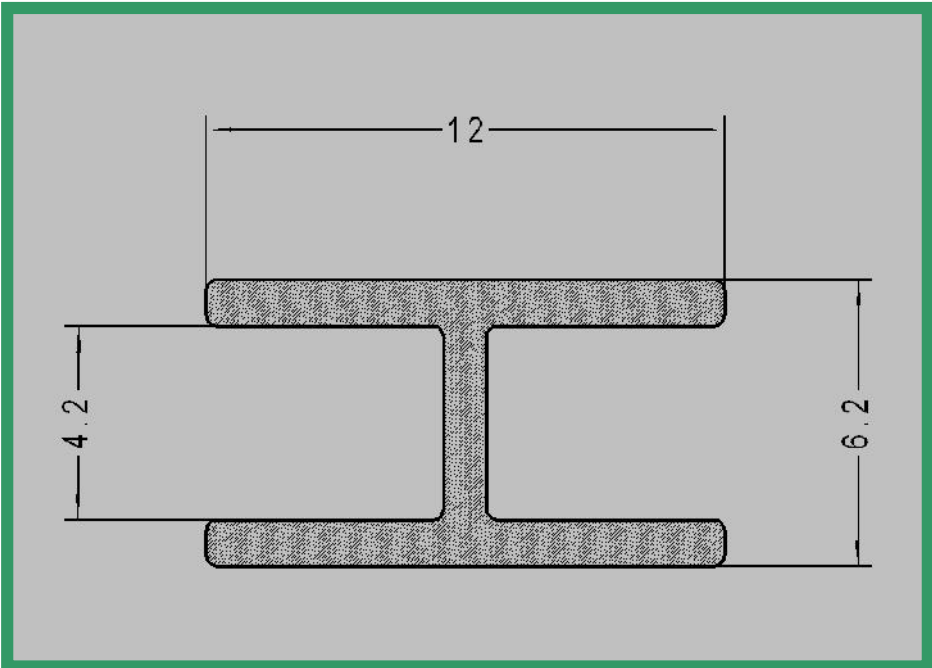


**GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE**

**Profil 1010.19**  
**Material : POLYCARBONAT GLASKLAR**

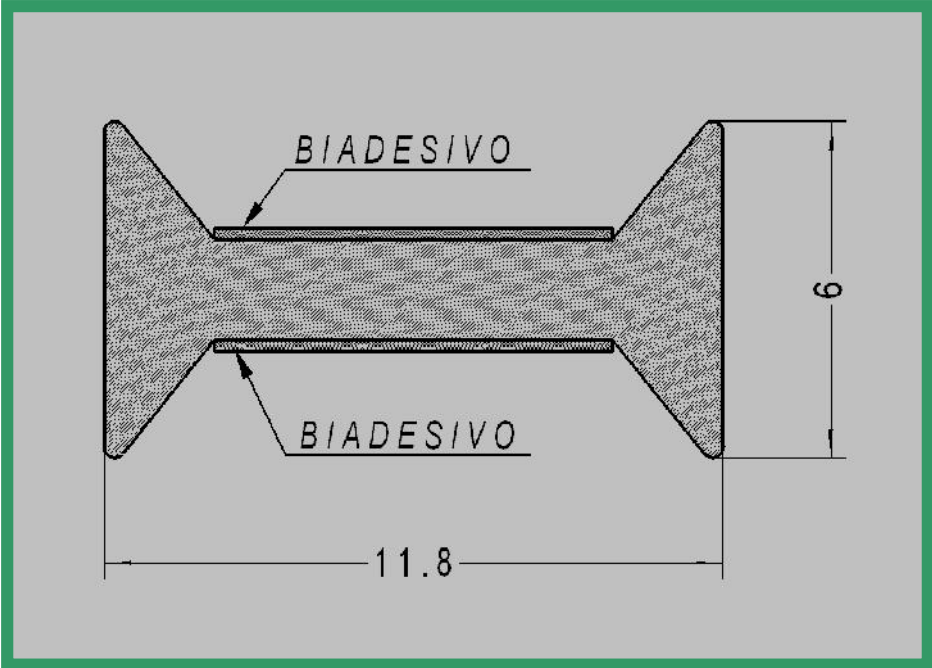


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**Material : POLYCARBONAT GLASKLAR**

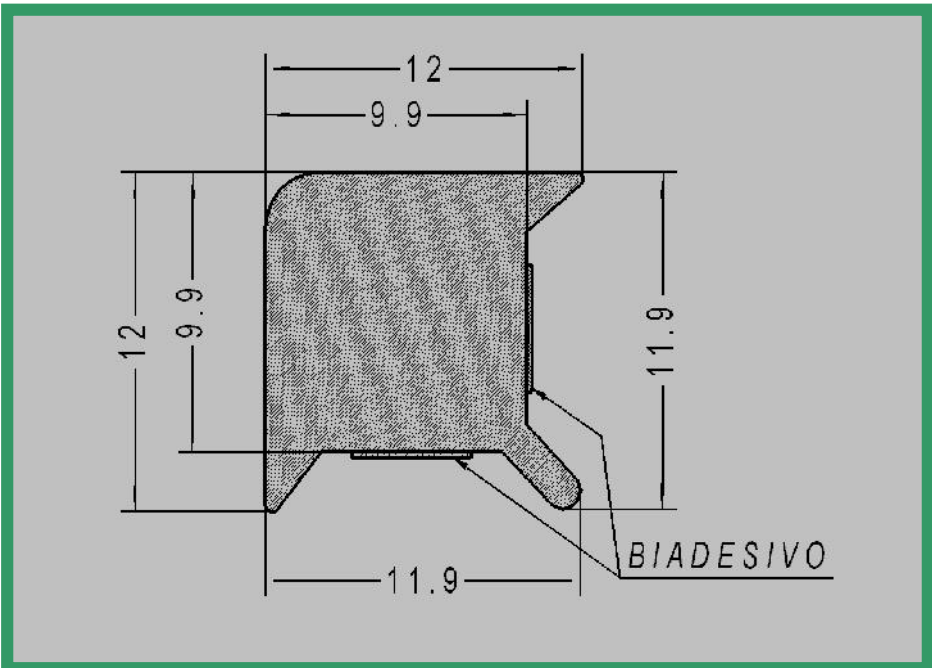


**GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE**

**Profil 1010.95**  
**Material : POLYCARBONAT GLASKLAR**

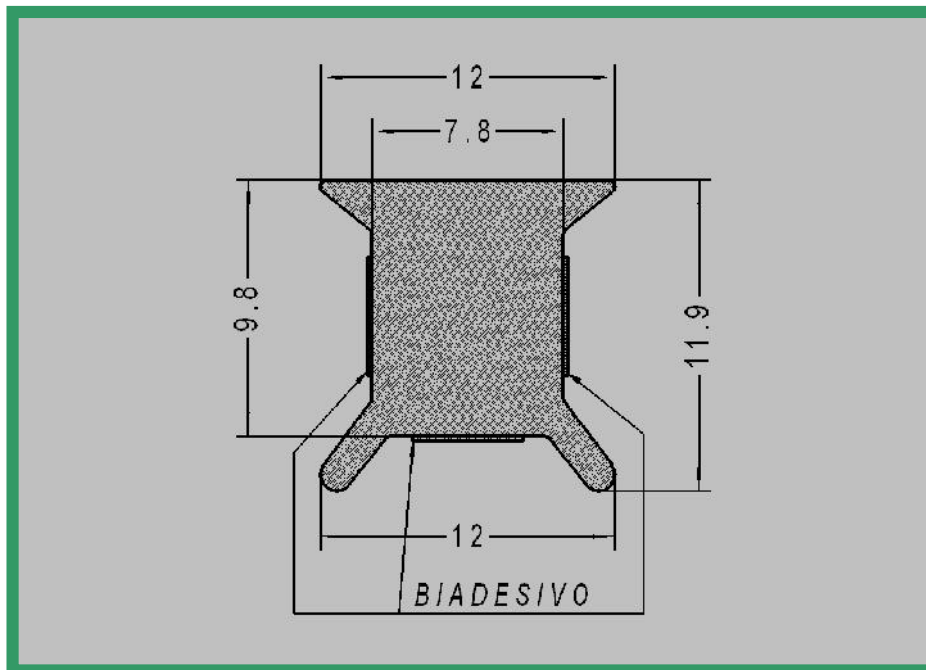


**Profil 1010.100**  
**Material : POLYCARBONAT GLASKLAR**

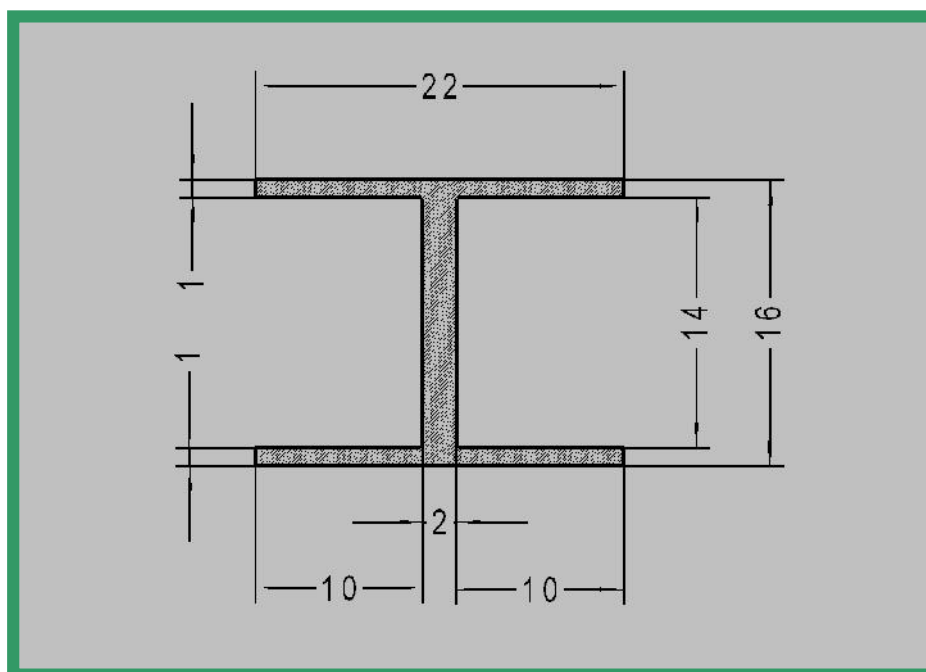


## GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE

**Profil 1010.101**  
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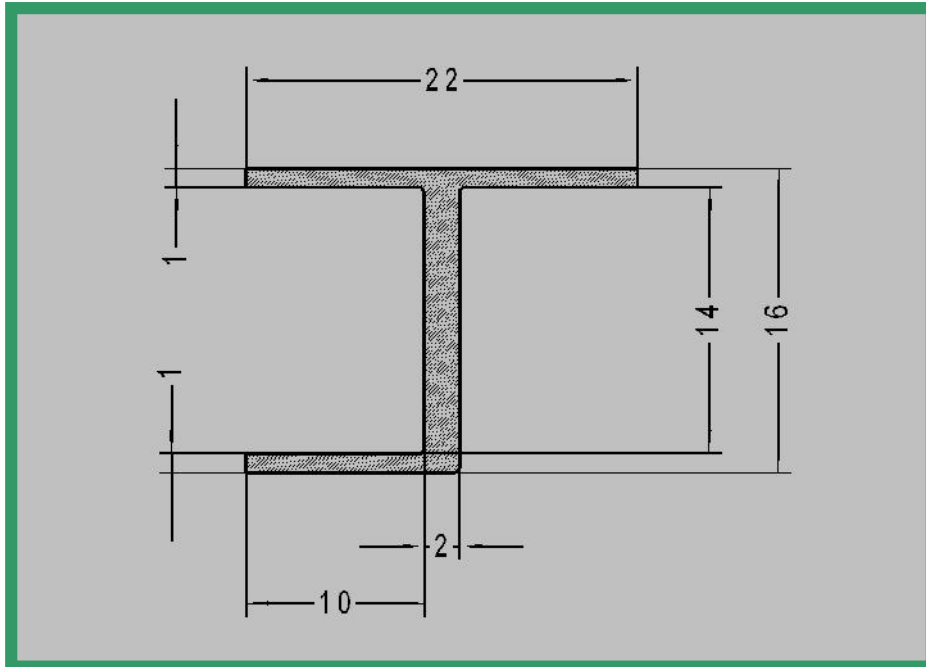


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**Material : POLYCARBONAT GLASKLAR**

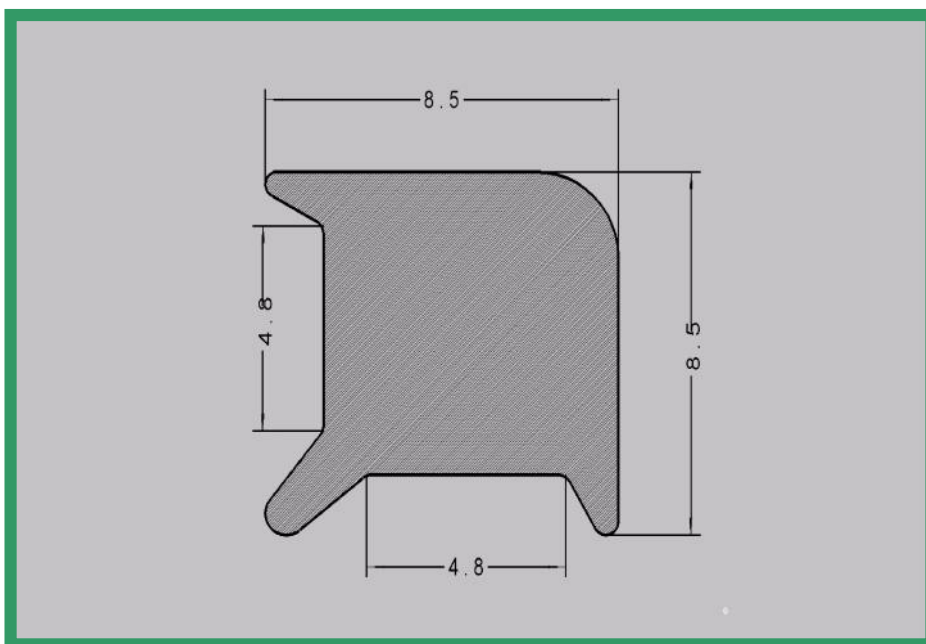


# GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE

**Profil 1010.105**  
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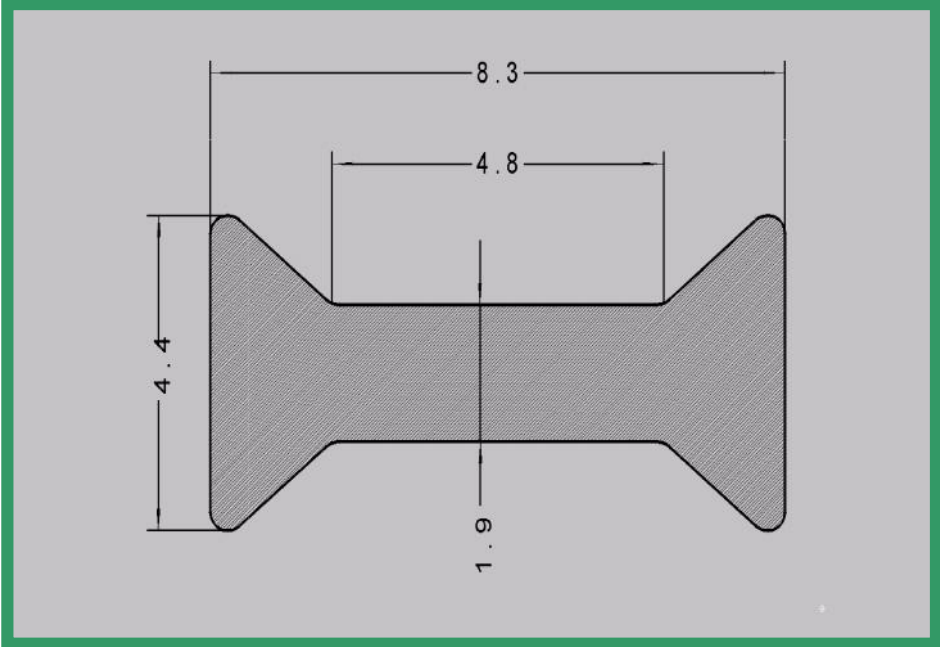
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**Material : POLYCARBONAT GLASKLAR**



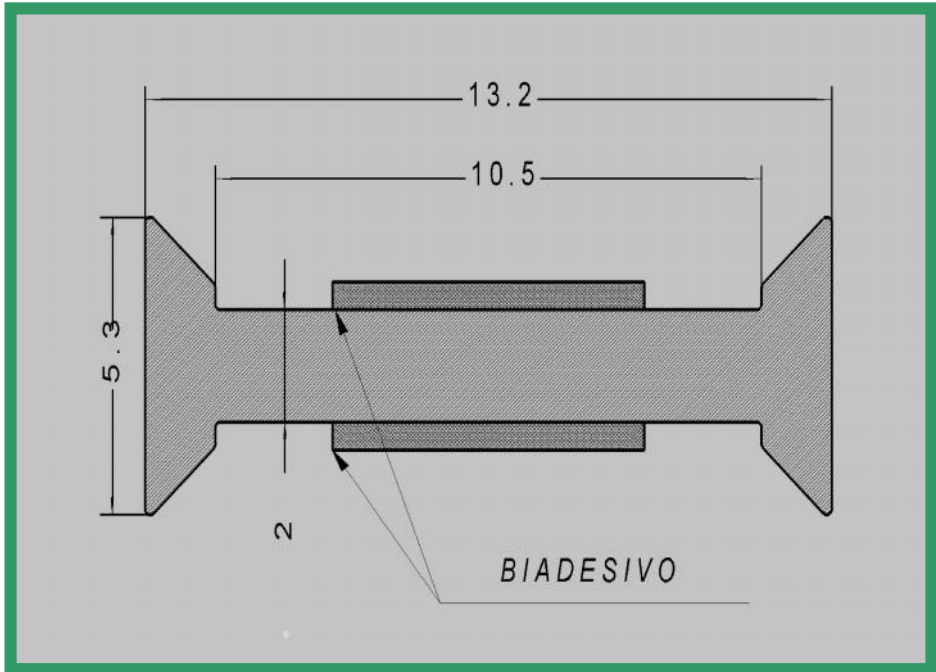


**GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE**

**Profil 1010.187**  
**Material : POLYCARBONAT GLASKLAR**



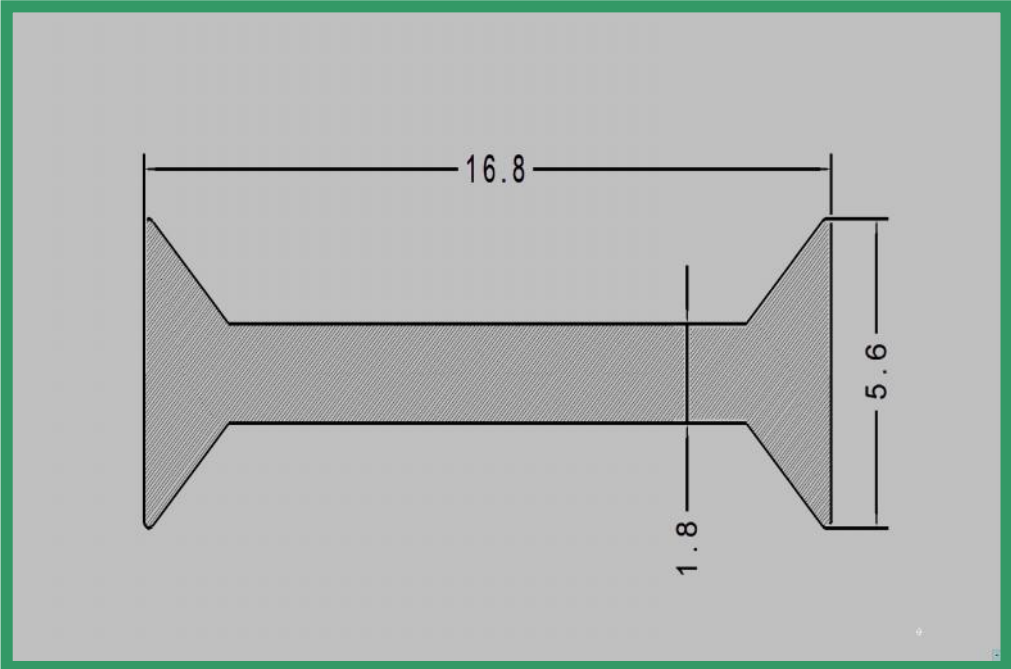
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**Material : POLYCARBONAT GLASKLAR**



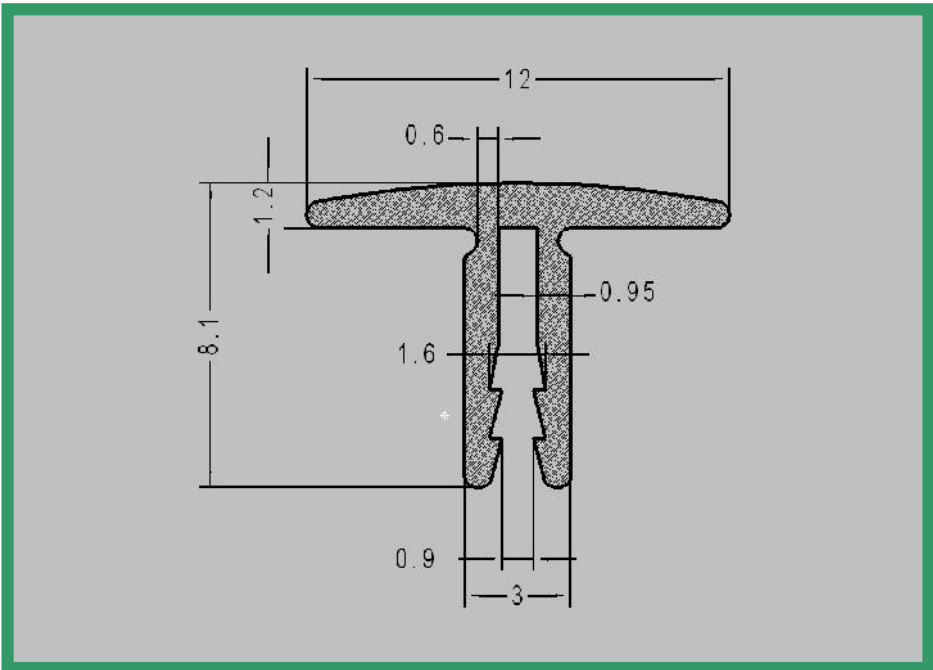


**GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE**

**Profil 1010.257**  
**Material : POLYCARBONAT GLASKLAR**

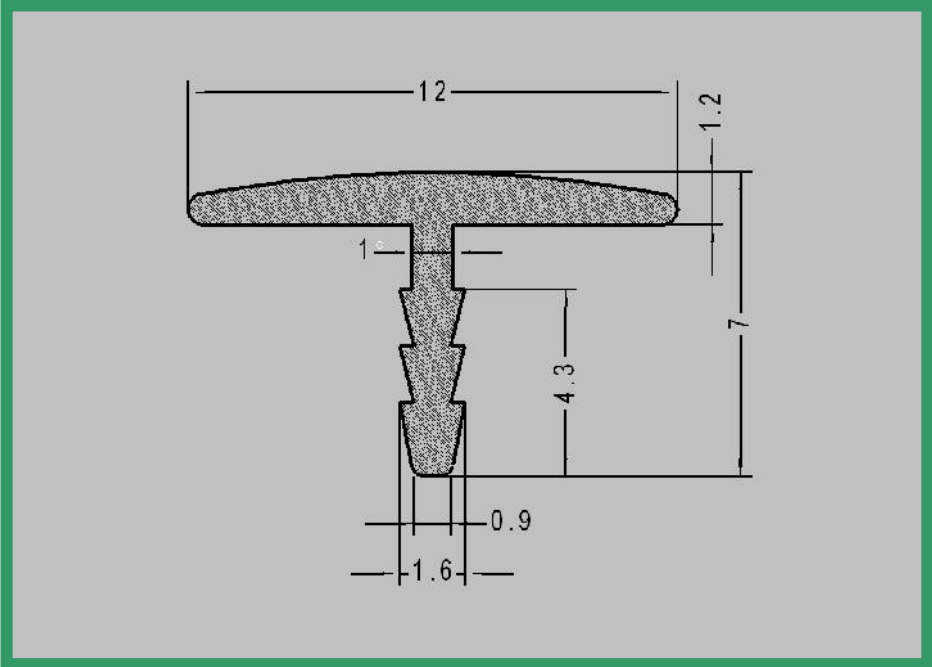


**Profil 1010.135**  
**Material : POLYCARBONAT GLASKLAR**



**GLASTRENNWAND UND WANDSYSTEME KUNSTSTOFFPROFILE**

**Profil 1010.136**  
**Material : POLYCARBONAT GLASKLAR**



# MATERIAL

## POLYCARBONAT UV- BESTÄNDIGKEIT

Physical	Nominal Value Unit	Test Method
Density	1.20 g/cm <sup>3</sup>	ISO 1183
Apparent Density	0.66 g/cm <sup>3</sup>	ISO 60
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	3.0 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	3.00 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage		
Across Flow	0.60 to 0.80 %	ISO 2577
Flow	0.60 to 0.80 %	ISO 2577
Across Flow: 2.00 mm <sup>2</sup>	0.75 %	ISO 294-4
Flow: 2.00 mm <sup>2</sup>	0.70 %	ISO 294-4
Water Absorption		ISO 62
Saturation, 23°C	0.30 %	
Equilibrium, 23°C, 50% RH	0.12 %	
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (23°C)	2400 MPa	ISO 527-2/1
Tensile Stress		ISO 527-2/50
Yield, 23°C	67.0 MPa	
Break, 23°C	65.0 MPa	
Tensile Strain		ISO 527-2/50
Yield, 23°C	6.3 %	
Break, 23°C	100 %	
Nominal Tensile Strain at Break (23°C)	> 50 %	ISO 527-2/50
Tensile Creep Modulus		ISO 899-1
1 hr	2200 MPa	
1000 hr	1900 MPa	
Flexural Modulus <sup>3</sup> (23°C)	2400 MPa	ISO 178
Flexural Strength <sup>3</sup>		ISO 178
3.5% Strain, 23°C	74.0 MPa	
23°C	100 MPa	
Flexural Strain at Flexural Strength		ISO 179
23°C, 2 mm/min	7.3 %	
Films	Nominal Value Unit	Test Method
Water Vapor Transmission Rate		ISO 15106-1
23°C, 100 µm, 85% RH	15 g/m <sup>2</sup> /24 hr	
Carbon Dioxide Permeability		ISO 2556
25.4 µm	16900 cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr	
100.0 µm	4300 cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr	
Nitrogen Permeability		ISO 2556
25.4 µm	510 cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr	
100.0 µm	130 cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr	
Oxygen Permeability		ISO 2556
25.4 µm	2800 cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr	
100.0 µm	700 cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr	
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength <sup>4,5</sup>		ISO 7391
-30°C, Complete Break	16 kJ/m <sup>2</sup>	
23°C, Partial Break	70 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength		ISO 179/1eU
-60°C	No Break	
-30°C	No Break	
23°C	No Break	
Notched Izod Impact Strength <sup>6</sup>		ISO 180/A
-30°C, Complete Break	14 kJ/m <sup>2</sup>	
23°C, Partial Break	80 kJ/m <sup>2</sup>	
Multi-Axial Instrumented Impact Energy		ISO 6603-2
-30°C	65.0 J	
23°C	60.0 J	
Multi-Axial Instrumented Impact Peak Force		ISO 6603-2
-30°C	6500 N	
23°C	5600 N	
Hardness	Nominal Value Unit	Test Method
Ball Indentation Hardness	115 MPa	ISO 2039-1

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	138 °C	ISO 75-2/B
1.8 MPa, Unannealed	127 °C	ISO 75-2/A
Glass Transition Temperature	145 °C	ISO 11357-2
Vicat Softening Temperature		
--	146 °C	ISO 306/B50
--	147 °C	ISO 306/B120
Ball Pressure Test (137°C)	Pass	IEC 60695-10-2
CLTE		ISO 11359-2
Flow: 23 to 55°C	0.000065 cm/cm/°C	
Transverse: 23 to 55°C	0.000065 cm/cm/°C	
Thermal Conductivity (23°C)	0.20 W/m/K	ISO 8302
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+16 ohms	IEC 60093
Volume Resistivity	1.0E+16 ohm-cm	IEC 60093
Relative Permittivity		IEC 60250
23°C, 100 Hz	3.10	
23°C, 1 MHz	3.00	
Dissipation Factor		IEC 60250
23°C, 100 Hz	0.00050	
23°C, 1 MHz	0.0090	
Comparative Tracking Index		IEC 60112
Solution A	250 V	
Solution B	100 V	
Electric Strength (23°C, 1.00 mm)	34 kV/mm	IEC 60243-1
Flammability	Nominal Value Unit	Test Method
Flame Rating - UL		UL 94
1.50 mm, CL, NC, WT	HB	
3.00 mm, WT	V-2	
6.00 mm, CL, NC, WT	V-0	
Glow Wire Flammability Index		IEC 60695-2-12
1.00 mm	850 °C	
1.50 mm	850 °C	
2.00 mm	850 °C	
3.00 mm	960 °C	
4.00 mm	960 °C	
Oxygen Index <sup>7</sup>	27 %	ISO 4589-2
Burning Rate (> 1.00 mm, US-FMVSS)	Passed	ISO 3795
Flash Ignition Temperature	480 °C	ASTM D1929
Needle Flame Test		
1.50 mm, Method F	60.0 sec	
1.50 mm, Method K	5.0 sec	
2.00 mm, Method K	5.0 sec	
2.00 mm, Method F	60.0 sec	
3.00 mm, Method F	120.0 sec	
3.00 mm, Method K	10.0 sec	
Self Ignition Temperature	550 °C	ASTM D1929
UL 746	Nominal Value Unit	Test Method
RTI Str (1.50 mm)	125 °C	UL 746
RTI Imp (1.50 mm)	115 °C	UL 746
RTI Elec (1.50 mm)	125 °C	UL 746
Optical	Nominal Value Unit	Test Method
Refractive Index <sup>8</sup>	1.587	ISO 489
Transmittance		ISO 13468-2
1.00 µm	89.0 %	
2000 µm	88.0 %	
3000 µm	88.0 %	
4000 µm	87.0 %	
Haze (3000 µm)	< 0.80 %	ISO 14782
Additional Information	Nominal Value Unit	Test Method
Electrolytical Corrosion	A1	IEC 60426
ISO Shortname	PC,ELS,(,)-05-9	ISO 7391