

GS11 Technical Data Sheet

Description and Applications

Evergreen Plastic's Tenopex®PC GS11 is an extruded polished / polished polycarbonate film, comprising excellent mechanical and optical properties. It offers excellent transparency, high temperature resistance, good dimensional stability with ease of processing for various printings, thermoforming, die-cutting, embossing, bonding and bending. Typical applications include panel nameplates, membrane touch switches, labels, automotive instrument panels, light guide films, sporting helmets, toy car bodies, security cards and so on. The film offers good printability without pre-treatment, making it suitable for multi-layer printing applications like overlays and in-mold decorations. Specific products requiring additional UV stability or outdoor usages are available.

Typical Property Values

Property	Test Method	Units	Value
Physical			
Density	ASTM D792	g/cm ³	1.2
Water Absorption, 24hrs	ASTM D570	%	0.35
Optical			
Light Transmission	ASTM D1003	%	89-91
Haze	ASTM D1003	%	<1
Mechanical			
Tensile Strength	ASTM D882	MPa	≥60
Tensile Elongation at Break	ASTM D882	%	100-150
Young Modulus	ASTM D882	MPa	≥2100
Impact Strength (0.76mm)	ISO 6603-1	J	31
Thermal			
Heat Deflection Temperature at 1.82Mpa	ASTM D648	°C	135
Coefficient of Thermal Expansion	ASTM D696	10 ⁻⁵ /°C	7
Coefficient of Thermal Exchange	ASTM C177	W/m.°C	0.19

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Shrinkage at 150°C	ASTM D1204	%	1.4
Electrical			
Dielectric Strength	ASTM D149	V	17000
Surface Resistivity	ASTM D257	Ω/square	10 ¹⁵
Volume Resistivity	ASTM D257	Ω.cm	10 ¹⁶
UL Flammability			
Film thickness ≤ 0.25mm	UL94		VTM-2
Film thickness ≥ 0.375mm	UL94		V-2

Manufacturing Gauge Specifications

Nominal Gauge Ranges	Min/Max Tolerances of Nominal
0.125mm - 0.175mm	+/- 10%
0.25mm - 0.375mm	+/- 7%
0.5mm - 1.0mm	+/- 5%

These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local sales representative. Reported values are based on 0.250 mm thickness film unless otherwise noted.

Each user is responsible for making its own determination as to the suitability of Tenopex's products, services and recommendations for the user's particular use through appropriate end-use testing and analysis. Although any information or technical recommendation will be given without warranty nor guarantee nor implied, that the results indicated herein are obtained under end-use conditions. Except as provided in seller's standard conditions of sale, seller shall not be responsible for any loss resulting from any uses of its products or services described herein.