

# Tenopex® GS11UV Polycarbonate Technical Data Sheet

## Description and Applications

Tenopex® GS11UV is a polished / polished clear polycarbonate film with the capability of absorbing UV wavelength at 380nm, comprising of excellent mechanical and optical properties. It also offers excellent transparency, high temperature resistance, good dimensional stability with the ease of secondary processing. These films and sheets are recommended for outdoor graphics applications such as outdoor nameplates & sign graphics, outdoor lenses & goggles, fascia overlays & decorative panels of equipment under exposure of UV rays. Variant of UV resistance upto 400nm is also available upon request.

## Typical Property Values

Property	Test Method	Units	Value
<b>Physical</b>			
Density	ASTM D792	g/cm <sup>3</sup>	1.2
Water Absorption, 24 hrs	ASTM D570	%	0.29
<b>Optical</b>			
Light Transmission	ASTM D1003	%	89-91
Refraction Rate	JIS-D7105	%	1.49
Yellow Index	QUV Testing	For 1,000 hrs	< 3
	Xenon Arc Testing	For 1,000 hrs	< 2
Haze	ASTM D1003	%	< 1
UV Transmission	GB 10810.2-2006	%	≥ 380nm
<b>Mechanical</b>			
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	30
<b>Electrical</b>			
Dielectric Constant (Test Frequency 60MHz)	ASTM D150	-	2.9
Dielectric Dissipation Factor (60MHz)	ASTM D150	-	0.009
Volume Resistivity (1000VDC @ 1min)	ASTM D257	Ω.cm	2.86 x 10 <sup>17</sup>
<b>Thermal</b>			
Thermal Resistance	ASTM D5470	k.m <sup>2</sup> /W	0.002262
Thermal Conductivity	ASTM D5470	W/(m.K)	0.313
Heat Deflection Temperature at 1.82Mpa	ASTM D648	°C	130 - 135
Coefficient of Linear Thermal Expansion	ASTM E831	Um/(m.°C)	68
Specific Heat	ASTM E1269	J/g.°C	1.094
Vicat Softening Temperature (50N / 50°C/hr)	ASTM D1525	°C	144
<b>UL Flammability</b>			
Film thickness ≤ 0.25mm ; ≥ 0.375mm	UL94		VTM-2 ; V-2

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

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