



The Plastic Films Specialist

GS42UV Technical Data Sheet

Description and Applications

Tenopex® GS42UV is an extruded velvet / matte clear polycarbonate film with the capability of absorbing UV wave at 380nm, comprising excellent mechanical and optical properties. Besides, it offers excellent transparency, high temperature resistance, good dimensional stability with ease of secondary processing. These films are recommended for the outdoor usages such as outdoor nameplates and sign boards, or screens or decoration parts of the equipments or environments which produce or under exposure of UV waves.

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	%	≥80
Gloss (@60° , Velvet)	ASTM D523-60		4 – 8
Gloss (@60° , Matte)	ASTM D523-60		5 – 15
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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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 \leq 0.25mm	UL94	VTM-2
Film thickness \geq 0.375mm	UL94	V-2

Manufacturing Gauge Specifications

Nominal Gauge Ranges	Min/Max Tolerances of Nominal
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.

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