

TECHNICAL DATA SHEET

VS103

Applications : Interlayer film for architectural and design laminated glass.
Suitable for laminated glass with or without insertion.

Characteristic : Thermosetting EVA-based polymer film.

Specifications

	Properties	Test method	Unit	Value *
Optical properties	Color	-	-	Super Clear
	Transmittance (380-1100 nm) **	TPIAS method	%	≥ 97
	UV cut off	TPIAS method	nm	380
	Haze (LG 33.1 structure)	TPIAS method	%	≤ 0.2
	Haze (LG 33.2 structure)	TPIAS method	%	≤ 0.3
	Refractive index	ISO 489	-	1.475
Mechanical properties	Adhesion to glass	ASTM D903	N/cm	≥ 70
	Young’s modulus	ASTM D412	MPa	9
	Elongation at break	ASTM D412	%	> 600
	Tensile strength at break	ASTM D412	MPa	≥ 18
	Secant modulus at 10% strain	ASTM D412	MPa	9
	Hardness shore A	ASTM D2240	-	68
Other properties	Water absorption	ASTM D570	%	< 0.1
	WVTR	ASTM F1249	g/m ² 24h	≤ 30
	%Cross-linking	TPIAS method	%	≥ 90
	Yellowness after UV exposure test	TPIAS method	Delta YI	≤ 4
	Yellowness after damp heat test	TPIAS method	Delta YI	≤ 2

* All data are initial QC values, Cured at 135°C, Cross-linking ≥ 90%.

** Transmittance of LG 33.1 structure.

Dimensions and packaging

Thickness (mm)	Roll length (m)	Width (mm)	Core diameter (mm)	Packaging
0.38	100	up to 2440	76	Individual cardboard box
0.76	50			

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Test reports and certifications

Test topic	Test standard	Certified by	Glass system	Result
SGCC listing	ANSI Z97.1	SGCC & Intertek	44.1 float glass	Passed, Class B
Ball drop test	DIN EN 356	F&K	44.2 float glass	Passed, Class P1A
Pendulum test	DIN EN 12600	F&K	44.2 float glass	Passed, Class 2B2
Durability test (Heat, humidity and UV)	DIN EN ISO 12543-4	F&K	44.2 float glass	Passed
Sound reduction Rw (C; Ctr)	EN ISO 10140-2	ift Rosenheim	44.2 float glass	36 (-1;-2) dB
			66.2 float glass	37 (-1;-2) dB
			66.4 float glass	38 (-2;-3) dB
			88.2 float glass	39 (-1;-2) dB
			66.4 float glass with PDLC	38 (-1;-2) dB
Laminated glass for building	TIS 1222-2539	Thailand Automotive Institute	44.1 float glass	Passed

* Please ask for full report if needed.



Processing

Glass temperature parameter for sufficient cross-linking

Lowest glass temperature	110 °C / 230 °F
Highest glass temperature	135 °C / 275 °F

* Temperature of glass inside of the oven.

** Please see the processing detail from the recommended condition for vacuum bag oven document.

Storage and shelf life

Recommended storage conditions	Temperature < 30 °C / Humidity < 60 %RH
Shelf life	15 months after production date