

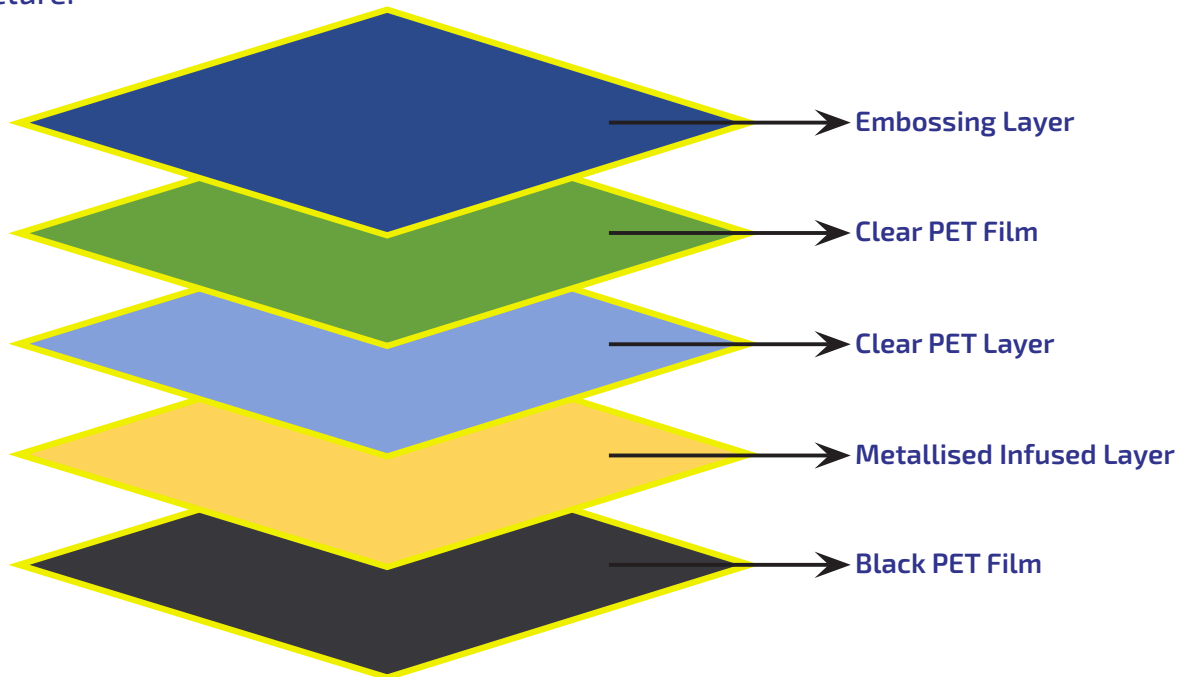
ULTRASOL

Material Safety Data Sheet [MSDS] /
Fire Testing AS1530.3

MATERIAL SAFETY DATA SHEET [MSDS]

Ultrasol for curtain-like functionality. This innovative material offers a unique blend of daytime privacy, outward visibility, and modern aesthetics, acting as a versatile alternative or complement to traditional blinds, typically used as a sheer blind.

Structure:



Key Properties:

- High see-through effect: When the film's silver side is towards the light, from the black side we can easily see the outside view due to the micro-perforations.
- Good UV block and light reflective: It can block the most part of UV light and infrared light, from the silver side it can reflect for the light.
- Good heat resistance.
- Good fire retardant effect.
- Environmental friendly structure: All use single material-PET, and no Bromophenol. Easily recycled.
- Good embossing design: Can customise different embossing pattern effects.

MATERIAL SAFETY DATA SHEET [MSDS]

MANUFACTURER'S PHYSICAL PROPERTIES

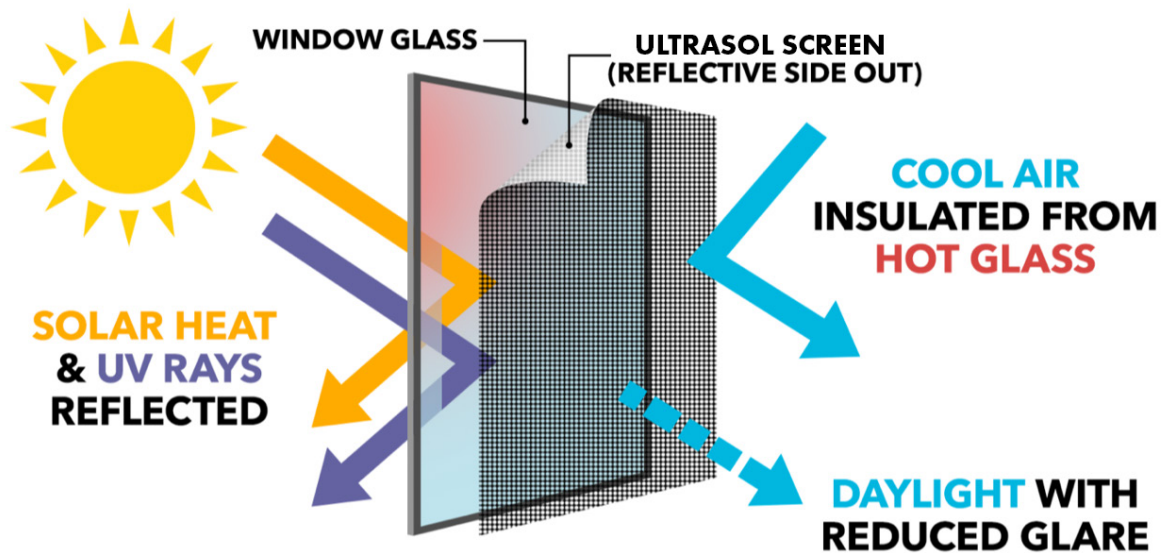
ITEM	TESTING METHODS	UNITS	TYPICAL VALUES
Thickness	ISO 4593	Um	150±15
Fire Retardant	UL94		Burn for 35 seconds and extinguish, allowing dropping
Bonding Strength	GB 8808-88	N/15mm	≥2.0
Light Transmission Rate	LS160 Transmission Meter Test	%	≤30
UV Resistance Rate	LS160 Transmission Meter Test	%	≥70
Infrared Resistance Rate	LS160 Transmission Meter Test	%	≥70
Tensile Strength (MD)	ISO 527-3	MPA	≥60
Tensile Strength (TD)			≥75
Elongation at Break (MD)	ISO 527-3	%	≤65
Elongation at Break (TD)			≤65

Manufacturer: Cailong Guangdong China

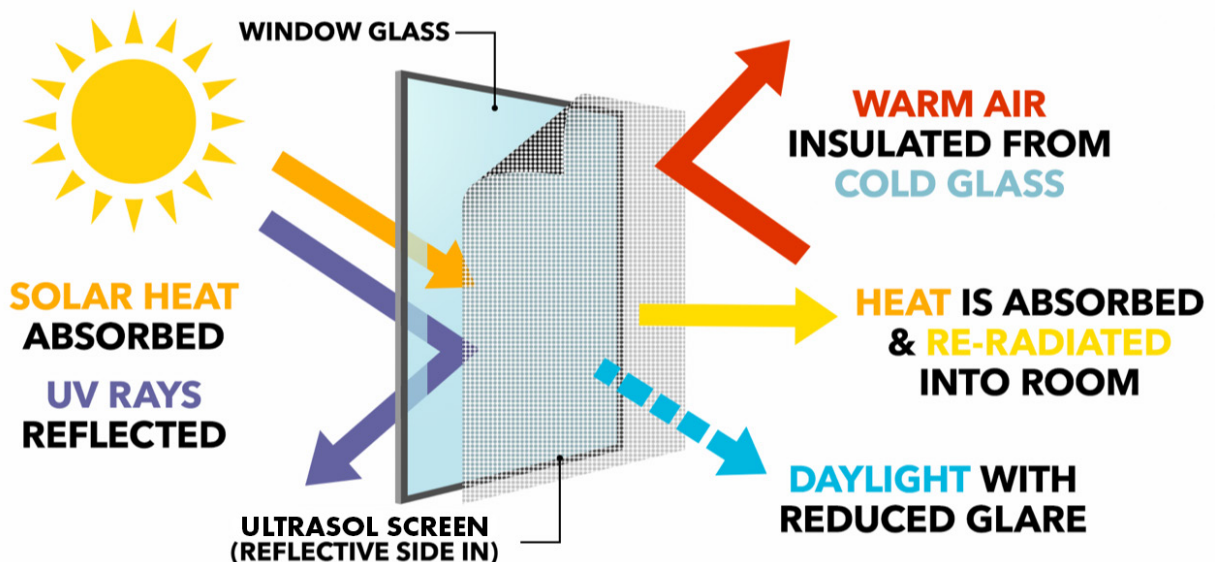
DESIGN SPECIFICATIONS

ENERGY PERFORMANCE - ULTRASOL

SUMMER RESULTS - SOLAR REJECTION MODE



WINTER RESULTS - SOLAR ABSORPTION MODE



FIRE TESTING AS1530.3



TEST REPORT

ULTRASOL

Date: Jan 04, 2026

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I. Test conducted

This test was performed in accordance with AS/NZS 1530.3:1999 Methods for fire tests on building materials, components and structures. Part 3: simultaneous determination of ignitability, flame propagation, heat release and smoke release.

II. Sample details

Description	Film
Color	Silver
Area density	165 g/m ²
Specimen size	600mmx450m
Test surface	Silver surface

	Temperature (°C)	Humidity (%)
Conditioning	20±2°C	65±5%

Note: The specimens shall be conditioned to constant mass (see ISO 291).

Mounting or fixing method for test sample:

Fibre-reinforced cement board used as substrate, holding the sample and substrate against the specimen support frame by the clamps. No joint in the specimens.

III. Test results

The mean values and standard errors:

Items	Mean value	Standard error
Ignition Time, (min)	NI	NA
Flame propagation time, (s)	NA	NA
Heat release integral, (Kj/m ²)	NA	NA
Optical density, D (m ⁻¹)	Ignition specimen	---
	Non-ignition specimen	0.0380
Smoke release, lg D	Ignition specimen	---
	Non-ignition specimen	-1.4202

Note: NI-Not ignition; NA-Not applicable

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1) Where some of the specimens do not ignite, means and standard errors for smoke release shall be reported separately for those specimens that ignite and those that do not ignite. The higher of the two values shall be reported as the smoke released for the material or component. If the higher value applies to a non-ignition case, this fact shall be reported.

2) Where not all specimens ignite, indices for smoke developed shall be determined separately for those specimens that ignite and those specimens that do not ignite. The index allotted shall be based on the worst result.

Regulatory Indices:

Items	Regulatory indices
Ignitability index (Range 0 to 20)	0
Spread of flame index (Range 0 to 10)	0
Heat evolved index (Range 0 to 10)	0
Smoke developed index (Range 0 to 10)	3

Supplementary Observations:

- a) Number of specimens tested: 6
- b) The number of specimens that ignite: 0
- c) Where flashing was encountered, and ignition was based on a 10-second flash: No
- d) The number of specimens did emit a radiation intensity rise of 1.4kW/m²: 0
- e) Any observations: colour changed, deformed, crack
- f) Others: None

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Table 1 Indices for spread of flame

1.33 x mean flame propagation time, s		Index
≥270		0
≥240	<270	1
≥210	<240	2
≥180	<210	3
≥150	<180	4
≥120	<150	5
≥90	<120	6
≥60	<90	7
≥30	<60	8
≥10	<30	9
	<10	10

Table 2 Indices for heat evolved

Mean value of the integral from the radiation intensity curves Kj/m ²		Index
	<25	0
≥25	<50	1
≥50	<75	2
≥75	<100	3
≥100	<125	4
≥125	<150	5
≥150	<175	6
≥175	<200	7
≥200	<225	8
≥225	<250	9
≥250		10

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Table 3 Indices for smoke developed

Mean optical density, m^{-1}				Index
Expressed in terms of K^*		Expressed numerically		
	$<K$		<0.0082	0†
$\geq K$	$<2K$	≥ 0.0082	<0.0164	1
$\geq 2K$	$<2^2K$	≥ 0.0164	<0.0328	2
$\geq 2^2K$	$<2^3K$	≥ 0.0328	<0.0656	3
$\geq 2^3K$	$<2^4K$	≥ 0.0656	<0.131	4
$\geq 2^4K$	$<2^5K$	≥ 0.131	<0.262	5
$\geq 2^5K$	$<2^6K$	≥ 0.262	<0.525	6
$\geq 2^6K$	$<2^7K$	≥ 0.525	<1.05	7
$\geq 2^7K$	$<2^8K$	≥ 1.05	<2.10	8
$\geq 2^8K$	$<2^9K$	≥ 2.10	<4.20	9
$\geq 2^9K$		≥ 4.20		10

* Where K is a constant = 0.0082

† Where doubt exists in the resolving of optical density below $0.016m^{-1}$ the index allotted should be '0 to 1'.

Statement:

- 1) The results only apply to the specimen mounted as described in this report.
- 2) The results of this fire test may be used to directly assess fire hazard, but it should be recognized that a single test method will not provide a full assessment of fire hazard under all fire conditions.

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