
# Solar Filtering Thermal Insulation Technology Works On Three Key Design Properties

Radiant barrier technology reflects and collectively redirects up to 97% of all 4 methods of solar heat gain without blocking natural light light flow and whilst maintaining the visual connection to outside views.

## Ultrasol Window Skins

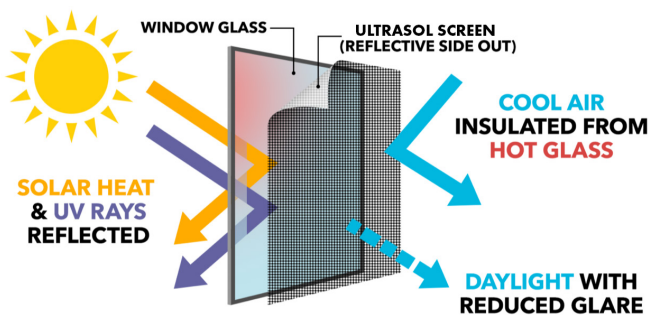
- Reflectivity
- Emissivity
- Absorbtion

Aluminium has a low emissivity of between .03 - .05. In Summer Performance mode, silver side facing out, only 3-5% of  undesirable solar heat gain is emitted through the aluminium layer.

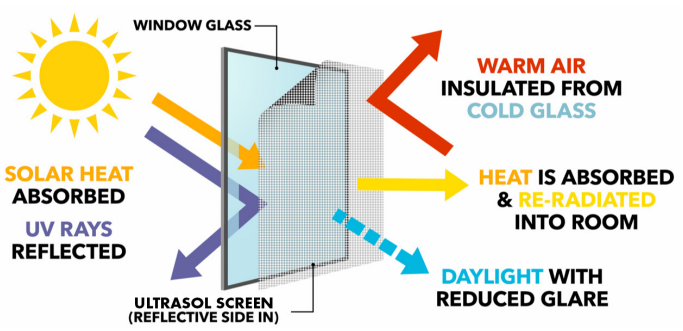
In Winter Performance mode, the black side of the Ultrasol material acts as a solar energy collector, absorbing solar heat gain and re-radiating desirable solar heat inside the building.

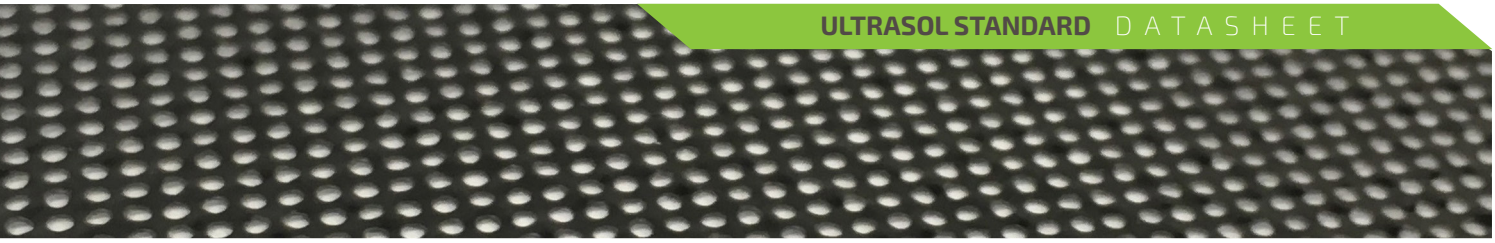
Constructed and designed by Ensol, Ultrasol Window Skins technology is a patented process of an aluminium coated infused PET sheet which is perforated and laminated to a sheet of clear PET.

**SUMMER RESULTS** - SOLAR REJECTION MODE




**WINTER RESULTS** - SOLAR ABSORPTION MODE







## Performance Data

| VISABLE LIGHT TRANSMISSION | |
|---|---|
| Daylight Illumination | over 4850 LUX |
| Transmittance | 27% |

| KEY PERFORMANCE INDICATORS | |
|---|---|
| UV Light/Rays Blocked | 82% |
| Infrared Light/Rays Blocked | 84% |
| Emissivity | 0.9% |
| Total Solar Energy Rejected | 82% |

| TECHNICAL SPECIFICATIONS | | |
|---|---|---|
| Weight (g/m2) | | 96.7 |
| Thickness (mm) | | 0.15 |
| Flame Spread Index | | 0 |
| Smoke Development Index | | 142 |
| Tensile Strength (MPA) | (MD) | ≥60 |
| | (TD) | ≥75 |
| Elongation at Max Load | (MD) | ≤65% |
| | (TD) | ≤65% |

| SOLAR HEAT GAIN BLOCKED | | |
|---|---|---|
| GLASS TYPE | UNPROTECTED | WITH ULTRASOL |
| Single Pane | 13% | 82% |
| Double Pane | 36% | 86% |
| Low E | 40% | 88% |
| Ultrasol Only | 78% | |

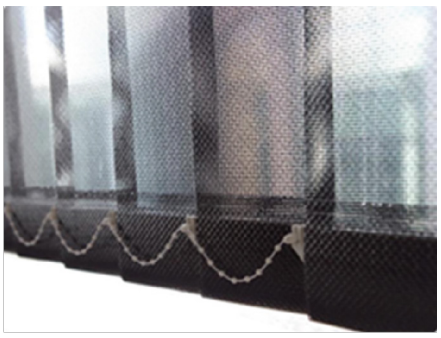
| SOLAR HEAT GAIN ABSORBED | | |
|---|---|---|
| | | INCREASE OF 750% WITH ULTRASOL |
| Single Pane | 6% | 46% |

| LIFESPAN/COMPLIANCE | |
|---|---|
| Degradation at 25 years | none |
| Manufacturer warranty | 7 years |
| Compliant with AS 1530.3 | |

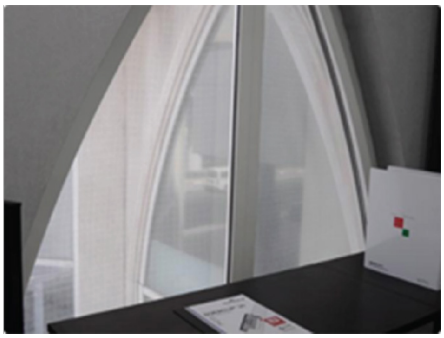
Deemed to satisfy as a double glazing alternative to meet the Energy Star Rating Legislation for Buildings in Australia

## Types

**Roller Shades**



**Vertical Shades**



**Fitted Frame**

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