



Energy

EnviroShield Performance™ ITO



Increasing solar control without sacrificing daylight transmission

Creating an environment rich in natural light whilst dealing with the broader issues of energy efficiency has long been the challenge of building designers. With the development of building code changes encouraging energy efficient design and growing consumer awareness, this challenge has never been greater.

Traditionally large areas of glass are desirable in building facades but can negatively affect a building's solar and thermal performance; outcomes not favourable to 'green' construction.

The introduction of performance interlayers providing energy efficient glass products has enabled Viridian™ to counter these concerns, allowing the freedom to create visually appealing structures with maximum visible daylight and low-energy consumption. There are various products that deal with the issues of minimising energy; few however, are as versatile as Viridian

EnviroShield Performance.™

There are two product groups that fall within the EnviroShield Performance range. These performance interlayers are **ITO** and **XIR® 71**.

ITO

Viridian **EnviroShield Performance™ ITO** increases solar control without sacrificing daylight transmission and is the highest performance single glazed offering from Viridian.

The combination of transparency, daylight transmission, low reflectivity and high performance solar control are qualities that make EnviroShield Performance ITO uniquely suited to Australasian environmental and design requirements. The coating technology combines high levels of solar control and thermal insulation in a laminated glass, without heavy tinting or reflective mirror-like coatings that reduce natural light.

EnviroShield Performance ITO adds a solar control interlayer to the laminate that has been specifically engineered for Australian conditions. It is a world first and a unique product offering that assists with the demands of modern building design. The attributes of EnviroShield Performance ITO are greater solar control with minimal reduction in daylight transmission. EnviroShield Performance ITO Clear offers the highest light transmission solar control product in the Viridian range. It eliminates 50% of solar heat gain. This product has been developed for designers who want the appearance of clear glass with medium performance solar control in applications such as retail entrances.

Features and benefits

- ◆ High daylight transmission up to 75%.
- ◆ Solar control – up to 70% of solar heat transmission is eliminated.
- ◆ Thermal insulation – a 30% improvement in U Value over standard glass. This is beneficial in both hot and cold climates.
- ◆ 99% UV eliminated for excellent fading protection.
- ◆ Noise reduction – thicker glass and interlayer combinations are available to achieve high noise reductions.
- ◆ Safety – EnviroShield Performance ITO is a Grade A laminated safety glass (AS/NZS2208) and can be used in areas where human safety is paramount, such as overhead glazing.
- ◆ Self cleaning – can be combined with Renew™ self cleaning glass.
- ◆ Security – thicker interlayers are available for increased resistance to physical attack.
- ◆ Warranty, refer to page 122.

Performance comparison chart

| EnviroShield Performance | | | |
|--------------------------|------------|-------|----------|
| Product* | Insulation | Solar | Daylight |
| ITO Clear 74 | 3.6 | 0.54 | 75 |
| ITO Green 67 | 3.6 | 0.45 | 69 |
| ITO Neutral 54 | 3.6 | 0.44 | 56 |
| ITO Grey 33 | 3.6 | 0.35 | 35 |
| ITO SuperGreen 45 | 3.6 | 0.34 | 46 |
| ITO SuperBlue 40 | 3.6 | 0.31 | 34 |

For comprehensive performance comparison data refer to page 129.

Applications

- ◆ Large facades
- ◆ Sporting facilities
- ◆ Atriums
- ◆ Libraries
- ◆ Skylights
- ◆ Museums
- ◆ Shop fronts

Maximum size

- ◆ 3660 x 2440mm

How to specify

- ◆ **Select glass name**
Viridian EnviroShield Performance™ ITO
- ◆ **Select thickness – process**
8.76mm to 17.52mm
- ◆ **Select colour**
Refer to performance comparison chart

Note: Thermal assessment may be required for EnviroShield Performance.