

RENSHADE DETAILS

Please see page 3 for Pricing & Ordering information

COMPOSITION

- Double-sided aluminium foil laminate, with paper substrate – perforated to let light in, but not radiant heat

FEATURES-APPEARANCE

- * Radiant Heat Barrier, not a fabric blind material. Silver colour.

PHYSICAL PROPERTIES OF ALUMINIUM FOIL

1. Outward facing foil surface reflects 97% inward radiation, with airspace
 2. Inward foil surface emits or re-radiates 3% of radiation, with airspace
- **RENSHADE** perforated surface area = 10%. Aluminium surface area = 90%
 - Inward radiant heat flow = estimated 85% reduction
 - Outward winter heat loss = reduction unspecified, but considerable

APPLICATIONS

see www.concertinafoilbatts.com/renshade.htm

- **RENSHADE** for vertical, angled and irregular shaped glass + atriums, greenhouses, skylights.
- **RENSHADE with Felt-Grip**: 40 spots per 5m rolls @ \$5 per packet.
Clean glass first, fit spots to inside of glass, then apply reverse spots on top. Fit **RENSHADE** sections carefully to the corners of the window first, then flatten out evenly across the glass.
- **RENSHADE Roller Blinds**: chain-drive best suited for long drop windows. Minimize handling.
No interference by children, animals or wind. Edge reinforcement for blinds, double-sided tape is best.
- **RENSHADE removable scroll-blinds**: top and bottom rods within a window frame, held on side hooks.
Or removable **RENSHADE** with a top edge cardboard strip, which is fixed to the glass.
- **RENSHADE** under transparent roofing – residential, commercial, industrial skylights, and removable frames.

BENEFITS

- Estimated 85% reduction in radiant heat flow – direct sunlight, reflected heat or ambient air temperature.
- No glare from incoming summer heat - gentle filtered light. Less damage to fabrics/timber flooring.
- See-through insulation - external view maintained with total privacy during daytime - impossible to see in.
Reverse optical effect at nighttime, therefore **RENSHADE** Roller Blinds are the best option – pull down at daytime, let up at nighttime.
- **RENSHADE** sheets can be removed, rolled up and reused, but care is needed.
- Felt-Grip application ideal for tenanted properties – no damage to glass.
- Excellent visual effect when combined with internal blinds/curtains – eg Venetian, sheer.
- Air-conditioning use will be considerably reduced or eliminated. Natural ventilation with cooler evening temperatures plus ceiling fans will usually be sufficient. Lower power costs, contributing to reductions in state/national summer peak load electricity demand - see Wren website: “New Items”.
- Reduces the need for expensive double-glazing.
- Transparent roofing is usually too hot to sit under – **RENSHADE** is the answer.
- Adequate winter light will penetrate **RENSHADE** to maintain plant growth.

VIEWING OF RENSHADE

** see website photos & testimonials

Display locations in Melbourne

Wren Industries - 139 Herald St., Cheltenham
Brunswick SW Primary School - Sth Daly St, West Brunswick

**chain-drive Holland blind examples
**west windows 100% - felt-grip use

Roller Blinds

Must be ordered through Blind Makers or contact Wren.

Why choose RENSHADE?

RENSHADE – SUMMER AND WINTER BENEFITS

Please view <http://www.concertinafoilbatts.com/renshade.htm>

RENSHADE is designed for use on internal surfaces of windows and under transparent roofing or skylights.

RENSHADE with airspaces stops approximately 85% of all incoming radiation. This is by either 97% reflection outwards as well as 3% low re-radiation/emission inwards, allowing for holes constituting 10% of the surface area.

It is not essential for a clear airspace to exist between the glass and the RENSHADE – the inward surface always functions independently because it always has a clear airspace facing into the room. The ideal minimum width airspace for vertical foil surfaces is 20mm. See also:

<http://www.concertinafoilbatts.com/fact12.pdf>

<http://www.concertinafoilbatts.com/fact13.pdf>

RENSHADE can be made into Holland Blinds but we do not organize this, rather we sell the base material alone to the blind manufacturers who deal direct with customers. Functioning chain driven blinds are on display at our showroom in Cheltenham - and they really work well. Blinds are the ultimate application because the view and amount of light can be controlled. RENSHADE is paper-based double-sided foil laminate, not a flexible fabric and will have a potentially long life as blinds so long as handling is minimized.

99% of sales to date have been for direct felt-grip application to inside of glazing.

Results: greatly reduced incoming summer heat, no glare, view is maintained and significantly reduced cooling costs. RENSHADE is not an external use sun shield. It is ideal for protected use applications, namely fixed (by felt-grip) against inside glazing, under skylights and stapled beneath transparent roofing. One of the best RENSHADE felt-grip applications is when combined with slim-line venetian blinds producing attractive optical variations throughout the day while the RENSHADE is largely hidden and obscured.

A successful result was achieved at Brunswick South-west Primary School (Melbourne) in Nov 2003 with RENSHADE fixed directly to inside of windows (4.5m high ceilings) with felt-grip, which was commented in the Community Power News write-up Spring 2004. Air-conditioning as well as external blinds were cost prohibitive and so RENSHADE blinds were first considered but we advised this would be unsuitable long term as damage would readily happen in a school environment. In this school application RENSHADE fixed to glass will remain permanently in place for all of the year, and wintertime would let less light in but electric lighting remains on regardless in institutional buildings – winter or summer. RENSHADE fixed to glass will very easily be the cheapest option for residential, commercial or institutional buildings and the summer benefit is quite literally enormous.

BODY CORPORATE properties may need to enquire if RENSHADE is permitted.

TENANTED properties – ideal application, low cost and no damage to glass, and surfaces can be easily cleaned.

The news articles <http://www.concertinafoilbatts.com/press.htm> provide further background to why incoming radiation must be identified and stopped. Aluminium insulations such as RENSHADE, CONCERTINA FOIL BATTS and conventional roll foil insulations do this. For comfort in hot climates, foil insulation products combined with natural ventilation and air movement by ceiling fans will often be sufficient, with the avoidance of expensive refrigerative air-conditioning. The key step is to remove the sources of incoming radiation.

RENSHADE testimonial letters and data files can be viewed: <http://www.concertinafoilbatts.com/renshade.htm>

Why choose RENSHADE? *cont.*

RENSHADE - WINTER HEAT RETENTION

RENSHADE will have an impact in keeping in winter heat. We predict that if the RENSHADE was left in place for the duration of winter, then heavy drapes would not be needed for either summer or winter - and then a lightweight blind, curtain or drape may be sufficient, eg venetian or vertical tilting blinds, sheer fabric.

We expect what is happening with winter heat is that there is an 10% surface area of holes and each hole is 2mm wide. It might just be that convected heat cannot make sufficient contact to the cold glass. If some type of combination blind exists, then an isolated reflective airspace has been formed which will provide additional thermal resistance. Aluminium backed drapes (which still exist on the market and are very expensive) also create greater thermal value than if there was no aluminium present. Trapped airspaces create insulation. Still airspaces are more effective than ones with air movement, and *still reflective aluminium* airspaces have greater thermal value.

Vertical foil airspaces are known to have approximately the same thermal resistance – HEAT FLOW IN (summer) or HEAT FLOW OUT (winter). So if the RENSHADE works in summer, then it must also be working in winter. But the RENSHADE was invented so as to be in place for the duration of summer and in many cases removed in winter. However, if made into Holland Blinds and combined with well fitting drapes, logically there will be aluminium foil airspaces on either side of the RENSHADE with more thermal value than if it were just RENSHADE stuck to the glass with Felt-Grip, forming one fully effective foil airspace. But in summary RENSHADE works perfectly well both against the glass or if suspended away in blind form.

It is a complicated technical subject, but the existence of the RENSHADE foil will enhance thermal resistance of the window, with or without an additional drape or curtain, in either summer or winter.

RENSHADE - PRICING & ORDERING

May 2016

ROLL SIZES & PRICING (excl. GST) \$13.65 per sqm

Direct from Melbourne manufacturer:

*1350mm x5m = **\$97** *1350x10m = **\$194** *1350x20m = **\$388**

FELT-GRIP: 40 spots per packet for 5m rolls

+ FREIGHT and handling: Australia-wide \$30.00+ **+ GST**

@ \$5 per packet.

Overseas Shipping: USA, Canada, Europe – DHL \$300 upwards, depending on weight.

PAYMENT

EFT/cheque/money order (no credit cards or Eftpos)

EFT: Wren Inds - ANZ Cheltenham, VIC: 013483-354873343

International Customers: ANZBAU3M

*fax/email confirmation of EFT info@concertinafoilbatts.com

[SWIFT / BIC CODE]

DELIVERY INSTRUCTIONS

Indicate position – eg. on front door, under carport/garage

Provide contact phone number

DELIVERY TIME

Domestic: 2-7 days depending on location

International: 2-3 days (example DHL)

WREN INDUSTRIES Pty. Ltd.



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