

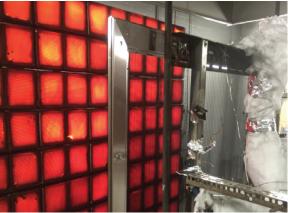
12.7

# microlouvre<sup>™</sup> attenuation screen

MicroLouvre<sup>™</sup>, the most efficient solar shading product, has now been tested and proven to have market leading fire performance. The specially angled, bronze louvres are the perfect solution for reflecting heat, as was shown by the industry leading 49.4% attenuation achieved when tested at CSIRO.

Not only does MicroLouvre<sup>™</sup> provide the highest amount of heat attenuation, it also has twice the open area of other screens. This makes MicroLouvre<sup>™</sup> almost invisible from the inside, giving perfect outward vision.

Used as a fire engineered solution to protect openings close to property boundaries, make sure to specify MicroLouvre<sup>™</sup> Attenuation Screen to get the most benefits for your building.



Fire testing at 40kW using a radiant panel

### Don't compromise!

- Get the best fire attenuation
- · Get the best solar shading
- Get the best visibility
- · Get the best ventilation
- Get total shading



**FE-38 Frame** 13mm x 35mm

**Louvre material:** C220 commercial bronze **Warp material:** C655 high silicon bronze

|                                  | microlouvre <sup>TM</sup><br>attenuation screen | - Cc<br>1 | ompetito<br>2 | or scree | ns<br>4 |
|----------------------------------|---|-----------|---------------|----------|---------|
| attenuation                      | 49.4%   | 37%       | 19%           | 31%      | 25%     |
| irradiance at 365mm <sup>*</sup> | 10.9kW/m <sup>2</sup>                           | 13.8      | 17.7          | 15       | 16.3    |
| open area                        | 80%   | 44%       | 41%           | 44%      | 44%     |
| solar heat gain coefficient      | 0.14  | 0.39      | 0.37          | 0.36     | 0.39    |
| high visibility                  |   |           | ۲             | ۲        |         |

\*Results based on 40kW/m<sup>2</sup> incident irradiance

3× actual STC

#### attenuation - ətɛnjʊˈeɪʃ(ə)n noun

1. the reduction of the force, effect, or value of something

Oxford Dictionary (2016)

Attenuation screens are usually compared by the percentage that the screen reduces heat. This means that 49.4% attenuation would reduce the heat at the location of the screen by 49.4%. Sounds obvious.

However, testing and proving this is not so straight forward. As there is not a standard test methodology, some claim the percentage attenuation as the reduction in heat at the screen, measured 365mm behind the screen. In reality, the heat has already reduced even without the screen in place at that position!

# where would a microlouvre<sup>™</sup> attenuation screen be used?

The population density within our cities is growing at a rapid rate. This means that we are constructing our buildings closer to the property boundary and each other. Class 2 to Class 9 buildings that are built within 6 meters of the property boundary require fire protection to the external walls.

Openings in the external walls are required to be fire protected in accordance with C3.4 of the NCC. The options include using 60 minute fire rated doors, fire windows, fire shutters or external wall wetting sprinklers.

MicroLouvre<sup>™</sup> offers a cost effective alternative to the NCC Deemed-to-Satisfy (DTS) requirements.

A fire engineer can use the extensive testing and high performance of MicroLouvre<sup>TM</sup> attenuation screens to determine a design where the building can withstand a minimum heat flux in accordance with Verification Methods CV1 and CV2 as defined in the NCC.

Installing MicroLouvre<sup>™</sup> attenuation screens to your Class 1 building (domestic dwellings) meets the requirements for screening in bushfire areas as required in AS3959-2018 up to BAL-40 & BAL-FZ.

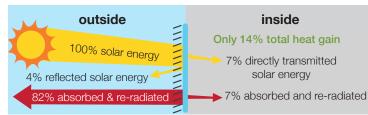
| MicroLouve |    |
|------------|----|
| ation      |    |
| ding       |    |
| with       | 1. |
|            |    |

| location      |                   | heat flux |  |
|---------------|-------------------|-----------|--|
| from boundary | between buildings | (kW/m²)   |  |
| 0m            | 0m                | 80        |  |
| 1m            | 2m                | 40        |  |
| 3m            | 6m                | 20        |  |
| 6m            | 12m               | 10        |  |
|               |                   |           |  |

Tables CV1 and CV2

# other benefits of microlouvre

#### sun and light control



- 86% reduction of solar heat gain
- 100% shading at sun angle of more than 40°
- Increase the comfort level within buildings by reducing the internal temperature near windows up to 10°C
- Save up to 60% on air conditioning costs
- 80% open area allowing natural light and ventilation
- Highly durable and weatherproof 40+ year installations and still going strong
- · Capable of withstanding wind speeds of 190km/hr
- 50% noise reduction
- · Compliant screening for bushfire up to BAL-40 & BAL-FZ
- Privacy screening to address overshadowing
- Insect and pest protection
- Powder coat mesh and frame to any colour
- Very light weight easy to install/retro fit
- Ease of maintenance

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## near perfect visibility



Inside looking out

MicroLouvre<sup>™</sup> is a SmartLouvre Techonology product -Distributed by Greene Fire in Australia delivering engineered solutions