

Case Study ION Science



Background:

ION Science has over 30 years of expertise designing, manufacturing and supplying PID gas sensors, gas detection equipment and leak detectors for a variety of industries and applications.

Smartlouvre worked with ION Science to implement Microlouvre Koolshade® over the skylights to ensure control over work environment temperature and thus reduce energy costs.

Requirements

- Short period installation
- Roof glazing
- Easy installation using non mechanical fixing
- Need to have perfect outward vision
- Need to have pure natural light (100% CRI)
- Zero heat transmission essential



The Problem:

Since ION moved into their stunning, ultra-modern, cedar-clad 'Passive' complex building, there has been a problem with heat passing through the glass roof where their gas leak and sensing equipment is designed has proved problematic.

The ION Science team struggled with solar heat gain pouring through workshop skylights because temperature regulation for sensitive testing equipment was essential.

Typical air conditioning was both difficult to balance and inadequate, causing many problems for personnel and equipment.

Other methods to reduce internal temperature whilst maintaining natural light

and vision out, like window films, had been tried but these solved none of the problems.



KOOLSHADE®
The Ultimate In Passive Solar Shading

THE SOLUTION

Microlouvre Koolshade® Screens have now been quickly and easily fitted to the skylights, using 3M Griplock tape thereby avoiding the need for any drilling or mechanical fixings whilst maintaining an essential air gap between screen and glass to allow heat dissipation. Griplock allows the screens to be easily removed for window cleaning.



Microlouvre Koolshade® provides up to 100% perfect solar shading but with an incredibly 80% open area for near perfect vision, daylighting and natural ventilation.

How can this be possible? It's simple, well not so simple, because there are up to 700 angled paper-thin micro louvres only 1.25mm wide and 0.3mm thick woven into every metre of ION screen.

"Microlouvre Koolshade® is a good product and does exactly what we needed it to do. Fair price compared to other estimates we received for alternative methods" Adam Wyeth - ION Science.

RESULTS

- Heat block and temperature reduction
- Views out
- Air Conditioning reduction
- Controlled glare
- Passive solar shading