

Thermal insulation test

The **Zero Carbon Research Team*** at **University of Derby** has conducted a set of experiments to determine the thermal insulation performance of new design thermal blinds from the company **Blind screen**, located in *17a St Christopher's Way, Derby DE24 8JY, United Kingdom*.

The experiment consisted of exposing the blind screen sample to a solar simulator generating heat to simulate the real conditions of use as shown in the figure below (*cf.* figure 1).

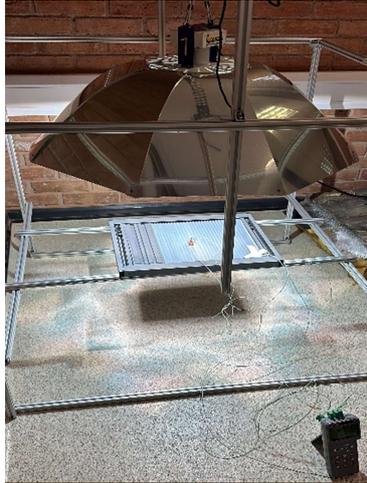


Figure 1: Laboratory test rig to evaluate thermal insulation performance of tested blind screens.

Two different “outside temperatures”, representing the hot side, have been tested, 48° and 60°C, and results are represented in the graphs below (*cf.* Figure2). The thermal screens produced a significant drop in temperature of up to 20°C across the screen depending on the outside temperature. An average drop of 7°C for ‘outside’ temperatures around 48°C and an average drop of 17°C in case of higher temperatures (*cf.* Figure2).

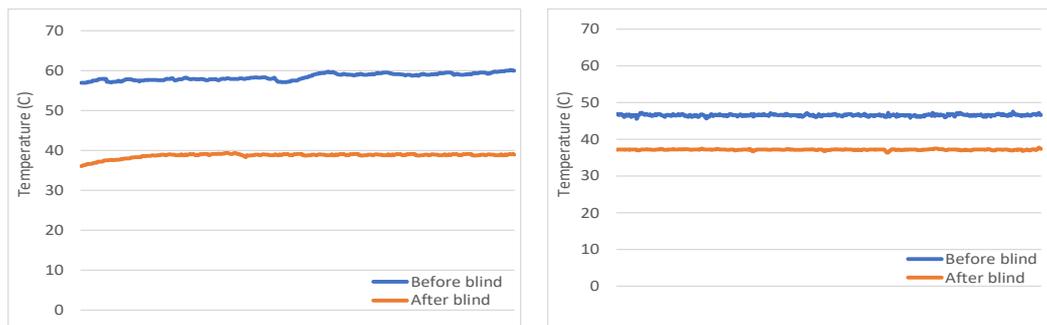


Figure 2: Difference in temperature measured across the thermal blind screen.

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