



TECHNICAL BULLETIN

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CONCRETE PAVERS ON PEDESTALS: WEIGHT LOAD TRANSMISSION IN CASE OF A WARM ROOF SYSTEM.

This technical bulletin is made as a guideline to explain the weight load transmission from concrete pavers on pedestals to the warm roof system below.

Case study: (This is an example that can be adapted to different paver dimensions).

Parameters:

Pedestal base diameter: 200mm

Concrete paver dimension: 600mm x 300mm x 40mm

PIR thermal insulation compressive strength: 100 kPa

Resulting pressure exercised by the pedestal on the insulation: 10 kPa

Calculation:

Each pedestal will carry the load of 1 paver.

Surface of the pedestal is 0,0314 m².

Surface of the paver is 0,18 m².

10 kPa on 0,0314 m² results in 31,4 kg/pedestal.

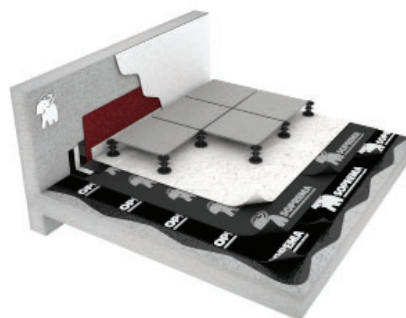
To achieve 31,4 kg on 1 paver you need a load of 1744 kg/m² on the paver.

Conclusion:

1744 kg/m² per paver is more than sufficient for pedestrian roof traffic.

Based on the above example, we conclude that this system of pavers with pedestals on a warm roof concept is strong enough to support a daily pedestrian traffic and complies successfully with the intended use.

Build up:



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