

Kalzip

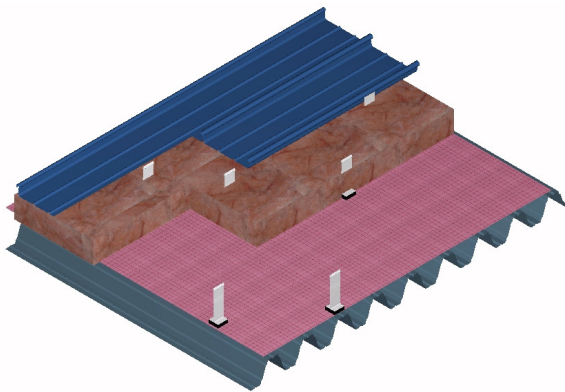
Kalzip Roof System – Kalzip Deck Roof System

Technical Information

TIS-SYS-DECK-100

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Kalzip Deck Roof System

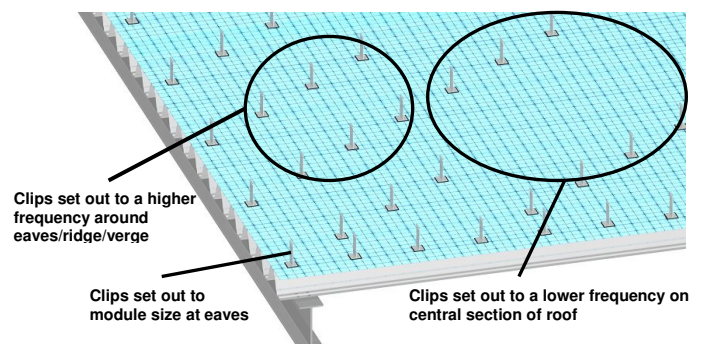


The Kalzip Deck Roof system consists of a Kalzip standing seam outer sheet, Kalzip insulation, Kalzip vapour control layer and a Kalzip structural decking sheet. The Kalzip standing seam outer sheet is supported off Kalzip ST or E Clips fixed direct to the Kalzip structural decking sheet.

The Kalzip Deck Roof system provides an economical solution for all types of industrial, commercial, leisure, retail and residential buildings where a long-spanning rafter-to-rafter roof construction is required.

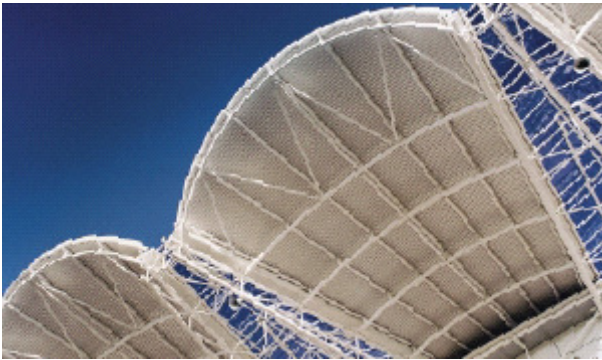
The Kalzip Deck Roof system has the outer Kalzip standing seam roof sheet fixed direct to the Kalzip structural decking sheet via the Kalzip ST or E Clips. The Kalzip structural decking sheet is laid transverse to the direction of the Kalzip standing seam roof sheet and is installed direct to the main steelwork rafters. Typical rafter centres would be approximately 4 to 10 m. This type of roof construction can also be known as a rafter roof construction.

The Kalzip ST or E Clips are installed in a diagonal layout so that all external roof loads can be evenly distributed to the structural decking sheet. The frequency of clips is increased at the perimeter of the building where higher wind loads occur.



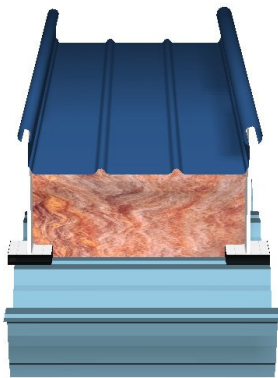
The gauge and profile of the Kalzip structural decking sheet is, therefore, determined by the rafter centres, all external roof loads, internal wind loads, service loads (eg lighting) and the dead weight of the construction components.

NB - Although the ST or E Clips are evenly spread across the decking they act as a series of point loads rather than a uniformly distributed load, therefore the external roof loads acting through the clips onto the decking must be increased by 15% to take this into account. The external roof loads (without the 15% increase) will determine the Kalzip standing seam support set out centres.



Kalzip Deck Roof System – variations

The complete range of Kalzip 65, 50 and AF65 standing seam profiles are suitable for use with the Kalzip structural decking profiles.



Section showing a Kalzip profile on a Kalzip structural decking sheet

The range of Kalzip structural decking profiles is shown below and is available in steel or aluminium:



KD45



KD70



KD113



KD120



KD153

Please contact Kalzip Technical Department for selection of the correct Kalzip structural decking sheet for a specific project.

Before any Kalzip structural decking sheet specification/order is placed, project specific calculations **MUST be under taken to assess which structural decking sheet is required. The calculation will also determine the fasteners required to meet the project loading.**

For detailed information on load/span capability, U Values etc, of the Kalzip Deck Roof system please see the relevant Technical Information Sheets.

Note:

This form of roof construction can also be modified to accommodate various acoustic performance requirements, by incorporating other layers such as high density insulation, boards and flexible membranes to provide increased sound reduction performance and by perforating the structural deck to provide increased sound absorption performance.

The requirement for high performance acoustic metal roofing is typically used for stadia, arenas, leisure centres, swimming pools, multiplex cinemas, office accommodation, residential, educational facilities etc. Please see the relevant Technical Information Sheets for further detailed information.