

Kalzip

Kalzip Roof System – Kalzip Liner-Deck Roof System

Technical Information

TIS-SYS-LINDECK-102

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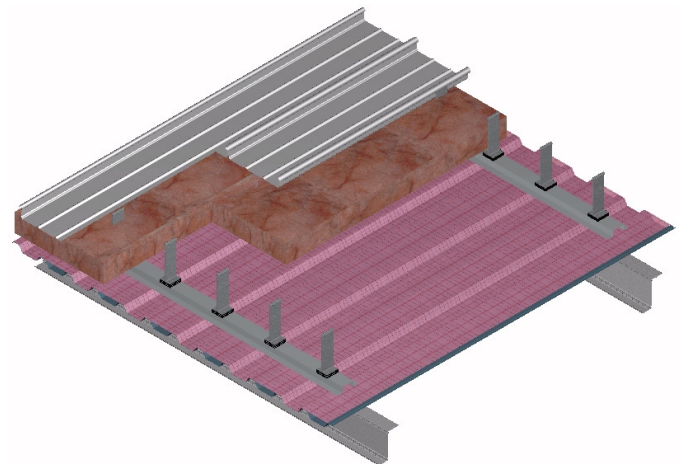
A variation of the Kalzip Liner Roof System, the Kalzip Liner-Deck Roof System utilises a low profile structural metal deck.

This roof construction consists of a Kalzip standing seam outer sheet, Kalzip insulation, Kalzip vapour control layer and a Kalzip Liner-Deck sheet. The Kalzip standing seam outer sheet is supported off Kalzip ST or E Clips in turn supported off a top-hat profile sub-purlin fixed direct to the Kalzip Liner-Deck Sheet.

Kalzip Liner-Deck Roof Systems are predominantly used for new build construction where purlin centres are greater than normal, where high density insulation is required (eg where wide tapered Kalzip roof sheets of fully supported Kalzip AF sheets are used) or where low U-values are required.

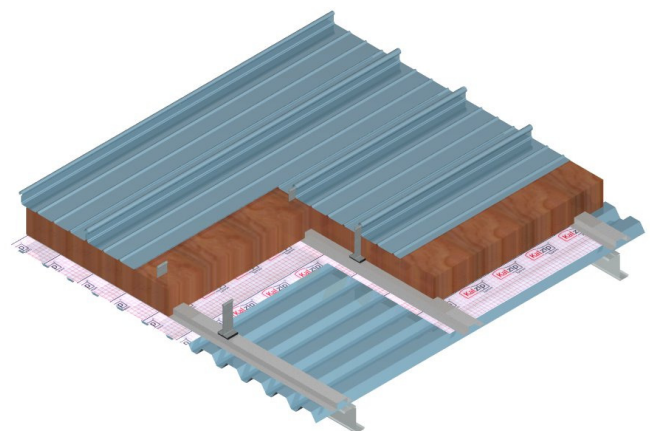
The Kalzip Liner-Deck Roof System is ideal where speed of installation on a project is of utmost importance. A non-fragile walkable Kalzip Liner-Deck sheet can be quickly installed to provide a temporary weather cover to allow other trades to work below. The remainder of the roofing components can then be installed without affecting the critical path of the construction programme.

The Kalzip Liner-Deck Roof System has the outer Kalzip standing seam roof sheet and the internal Kalzip Liner-Deck trapezoidal structural decking sheet laid in the same direction across



roof purlins acting as the primary support. The main difference between this construction and the more common Kalzip Liner Roof System construction is that the outer Kalzip standing seam outer sheet is supported direct off the Kalzip Liner-Deck via ST or E clips and top-hat sub-purlins.

The top-hat sub-purlins maybe fixed direct over the purlins only (if the purlin centres are suitable for the Kalzip standing seam sheet) or for wide purlin spacings further top-hats can be installed mid-span.



Isometric of roof construction with additional sub-purlin installed mid-span

This arrangement transfers the external roof loads as line loads to the Kalzip Liner-Deck when lightweight quilt-type insulation is used.

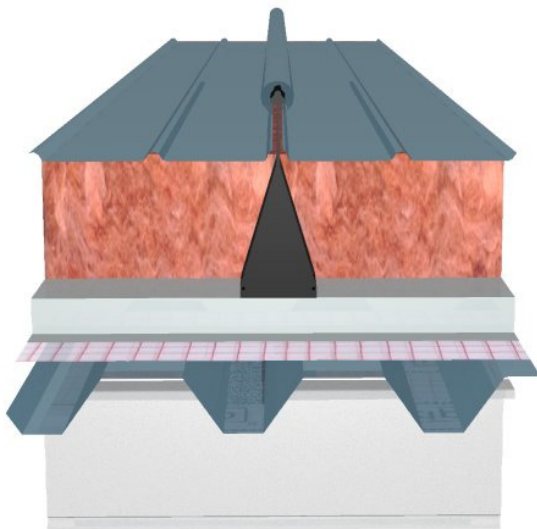
When high-density insulation is used within the roof system the external downward loads (e.g. snow) would be transferred as uniformly distributed loads.

The thickness and profile of the Kalzip Liner-Deck is therefore determined by the purlin centres, all external roof loads, internal wind loads, the dead weight of the construction components, its walkability requirement and its non-fragility rating.

The external roof loads will determine the Kalzip standing seam support set out centres.

Kalzip Liner-Deck Roof System – variations

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



Section showing a Kalzip Liner-Deck Roof System with Kalzip E-Clips on a top-hat profile sub-purlin

The range of Kalzip Liner-Deck Sheets (KLD32, KLD35 and KLD46) is shown on the following page.

Please contact Kalzip Technical Department for selection of the correct Kalzip Liner-Deck sheet for a specific project.

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

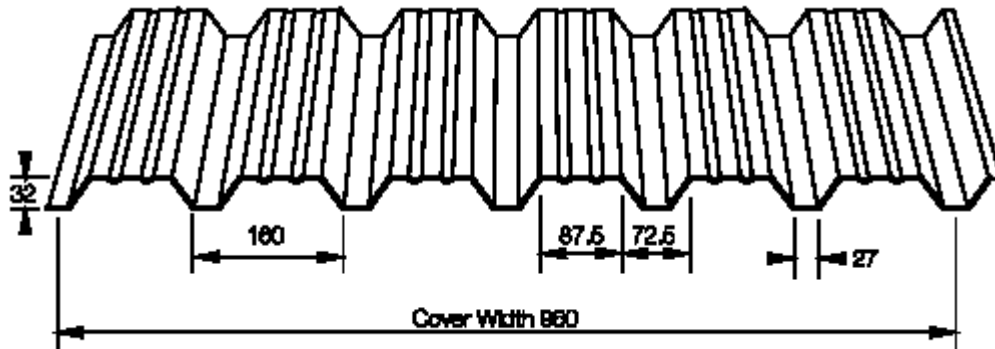
For detailed information on load/span capability, U Values etc, of the Kalzip Liner-Deck Roof system please see the relevant Technical Information Sheets.

Note

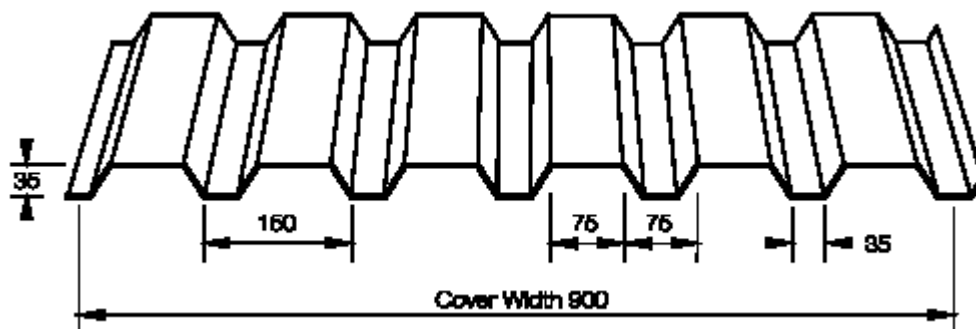
This form of roof construction can also be modified to accommodate various acoustic performance requirements, by incorporating other layers such as high density insulation, boards and flexible membranes to provide increased sound reduction performance and by perforating the liner or structural deck to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

Kalzip Liner-Deck Sheets

Kalzip Liner-Deck KLD32



Kalzip Liner-Deck KLD35



Kalzip Liner-Deck KLD46

