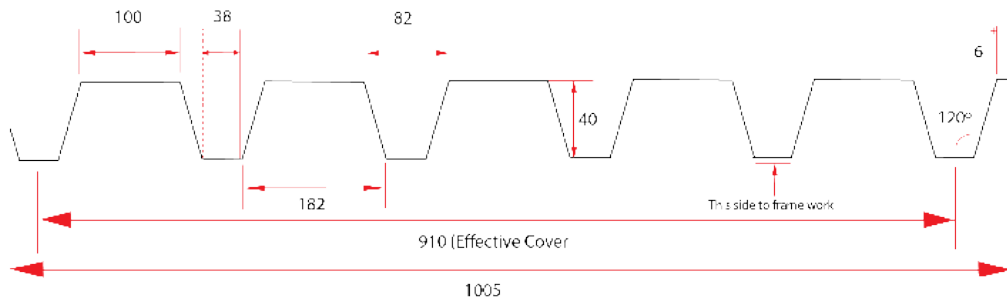


RL STRUCTURAL BASE DECK

FOR XTREME FIBERTITE MEMBRANE SYSTEMS

DESCRIPTION

RL Structural Base Deck(Standard) is 0.75mm zinc aluminium coated trapezoidal profile for use as a substrate for the RoofLogic Xtreme roofing system.



ADVANTAGES

RL Structural Base Deck has been designed and engineered to provide a structural steel substrate for the subsequent installation of the RoofLogic Xtreme roofing system. When installed in accordance with RoofLogic specifications it will:-

- Provide the required wind uplift resistance as part of the RoofLogic Xtreme roof assembly.
- Not exceed the maximum deflection limits for a structural steel base deck when used as a substrate for the RoofLogic Xtreme system.
- Provide the required fastener withdrawal resistance where the RoofLogic Xtreme system utilises the RL Base Deck as the point of mechanical attachment.

INSTALLATION

The RL Structural Base Deck can be installed over timber or steel purlins. The deck is to be secured at every purlin and through each pan of the base deck profile. The side laps of the RL Structural Base Deck are to be “stitched” with 12-14x20 Class 4 Steeltite. Centres for stitching screws are to be 300mm along the side laps of adjoining sheets. Refer to project specific specification for stitching centres and any stitching enhancements for roof perimeter and corners.

The below table are the fixings to be used when fixing RL Base Deck to purlins:-

WOOD PURLINS	STEEL PURLINS UP TO 15mm	STEEL PURLINS 15 mm – 4.5mm	STEEL PURLINS 4.5 mm – 12 mm
12- 11x40 Class 4 Type 17 Timbertites with neos	12- 14x20 Class 4 Steeltites with neos	12- 14x20 Steeltites With neos	12- 24x32 Class 4 Steeltites Series 500 with neos

RL STRUCTURAL BASE DECK

LIMITATIONS

It is important to establish compatibility of the base deck material with the purlin material or other structural elements that the base deck is installed over. Please contact Rooflogic if required to confirm material compatibility. Also refer to material compatibility matrix in the NZ Metal Roofing code of practice.

DESIGN LOADS

The loads imposed on a roof deck will be either a imposed (positive) loads (e.g. roof equipment, foot traffic) or negative (suction) loads (e.g. wind).

The designer is required to calculate the design wind load for the roof structure with reference to AS/ NZS 1170.2:2011 and/or NZS3604:2011. However, with most Xtreme installations, the point load will govern as it is the most severe of the imposed load and will determine purlin spacing for design purposes.

The design table below is presented to allow the designer to select suitable purlin spacings.

RL BASE DECK 0.75mm STEEL (550 MPa)		
PURLIN SPACING (m)		CONCENTRATED LIVE LOAD (kN)
Intermediate	End	
0.6	0.6	3.7
1.2	0.8	3.6
1.8	1.2	2.5
2.2	1.4	2.0
2.4	1.6	1.8

Note;

- Data provided assumes a double span arrangement as minimum.
- The table values are based on a screw in every pan
- The allowable loads are ultimate values.



Point Load over RL Metal Deck