

## LOADSPAN TABLE ESPAN® 470 0.9MM ALUMINIUM



### Minimum Pitch: 3 degrees.

Width: Cover = 470mm Sheet = 484mm.  
Applications: Commercial and residential.  
Orientation: Roofs and vertical wall cladding.  
Benefits: Secret fixed for superior weather performance.  
No Substrate Required.

## SPANS FOR AS/NZS 1170.

### Espan® must resist an Ultimate Limit State design load.

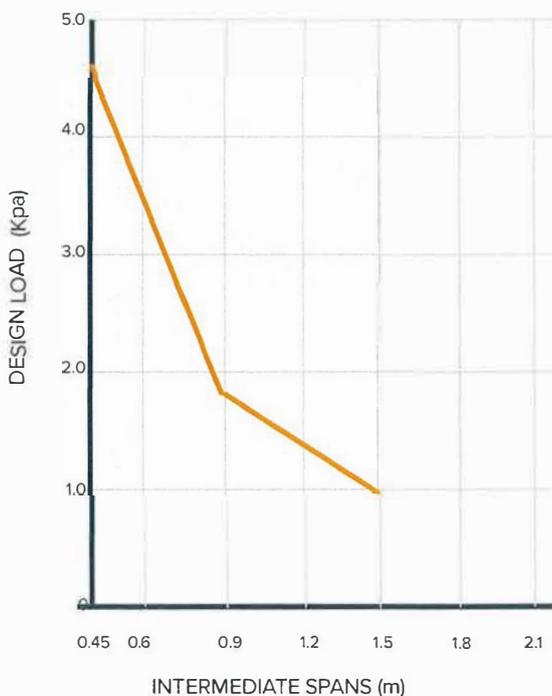
The intermediate spans shown in the graph below is based on 0.9mm Aluminium.

To calculate end spans please multiply the intermediate span by 0.66. Spans are based on unrestricted access and allow concentrated load of 1.32kN.

## DESIGN LOAD

0.90MM BMT ALUMINIUM

GRAPH HAS BEEN DISCOUNTED BY A 1.17 VARIABILITY FACTOR

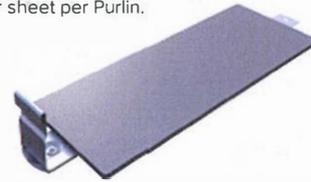


FEB 2020

Note: Oil Canning is an inherent characteristic of gauge cold formed metal products, particularly products with broad flat areas like espan®. The architect, builder and homeowner needs to be aware that oil canning may affect the overall aesthetic outcome. Please refer to MRM NZ Metal Roof and Wall Cladding Code Of Practice - Section 2.3.5 for more information. ([www.metalroofing.org.nz](http://www.metalroofing.org.nz)).

## RECOMMENDED FIXINGS

Fixing Patterns – 1 clip per sheet per Purlin.



### Timber:

10-12G Length to suit -minimum embedment into structure to be 35mm and greater than 6 times the screw thread diameter.

### Steel:

10-12G self-drilling fastener. Length to suit -minimum steel embedment should be 5 - 6mm beyond the drill point with a minimum of 3 threads beyond the drill point. Use load spreading washers if required for expansion.

## MAXIMUM SPANS FOR NZS 3604

In all wind zones, up to extra high as defined in Table 5.4 NZS3604:2011, the Ultimate Kpa loads for Low, Medium, High, Very High, Extra High have been derived from applying :

pressure co-efficients	cpe-cpi	= 1.1
local pressure factor	kl	= 1.5
ultimate load factor		= 1.0

**IMPORTANT: If the above parameters change then the recommendations below could be incorrect, seek confirmation from Metalcraft Roofing. If a project is specific engineered design do not use these recommendations and seek clarification from the project engineer. Specific engineered design will use different factors than above. Spans should be determined from the FACTORISED design load and using the table to the right.**

**Espan® must resist an Ultimate Limit State design load. Recommended maximum spans for Espan® 470 in 0.9mm Aluminium.**

### LOW (0.98Kpa - UDL)

1200mm centres for intermediate and 750mm for end spans.

### MEDIUM (1.32Kpa - UDL)

1100mm centres for intermediate and 700mm for end spans.

### HIGH (1.88Kpa -UDL)

900mm centres for intermediate and 550mm for end spans.

### VERY HIGH (2.44Kpa-UDL)

700mm centres for intermediate and 450mm for end spans.

### EXTRA HIGH (2.96Kpa-UDL)

600mm centres for intermediate and 390mm for end spans.

Spans above are based on unrestricted access and allow concentrated load of 1.32kN.

For alternative metals please contact your local Metalcraft Roofing branch.