



 **espan**[®]

Designed with style and performance in mind

Style And Performance

espan® has been designed for style and performance in mind and is Metalcraft roofing's new standing seam roof profile. The high ribs create strong defined shadow lines and combined with concealed fixings provide for superior weather performance.

espan® is available in two widths; 340mm and 470mm. Different pan options are also available, you can choose from either a flat pan for a strong sleek look or have two swages in the pan creating extra shadow lines and providing for extra profile strength.

A variety of colours and coating options from New Zealand Steel are available and are especially suitable for NZ conditions.



Quality Rest Assured

espan® is manufactured from locally sourced NZ Steel COLORSTEEL® so you can trust espan® to endure for many years to come.



COLORSTEEL
ENDURA®

COLORSTEEL
MAXX®



Canterbury Prickle

Canterbury prickles can be used with both espan® 340 and espan® 470. For more information on this option please contact your local Metalcraft Roofing branch or download technical prickle information from www.metalcraftgroup.co.nz.

Variety Of Applications

espan® can be used on roofs to a minimum of 3 degrees but if you want the strong defined lines of espan® to be visible why not increase your roof pitch or use the panels as vertically laid wall cladding.



Indicative 3d render showing PV laminates



Sustainable

Steel is a recyclable product, so you can be confident in the knowledge that it does not have to be disposed of in landfill. Instead it can easily be recycled and reused, thereby minimising resource use and reducing impact on our environment.

As well as this, New Zealand Steel has devoted considerable effort and resources to ensure that their manufacturing processes consider and minimise environmental impacts adhere to the concepts of sustainability. This is evident in the range of environmental certifications that they have secured such as the International Environmental Management Standard, the ISO14001.

Solar Energy

espan® 470 can accommodate either PV solar laminates or clip on solar panels.

espan® 340 can accommodate clip on solar panels and allows for optimum solar energy generation. Please refer to the solar brochure for more information.

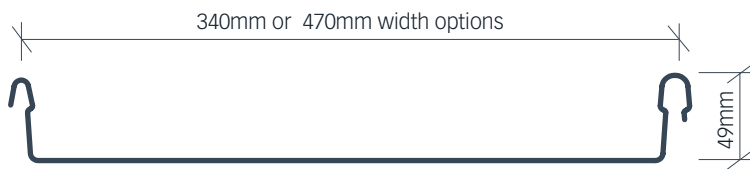
Warranties:

Material warranties are closely linked to environmental categories. The NZ Steel Environmental Categories Brochure gives a guide to the classification of the environmental categories and the associated warranties that the various material finishes are given. Please contact your local Metalcraft Roofing branch to request a brochure if you have any questions relating to which product to use in a particular location.





espan® with a flat pan



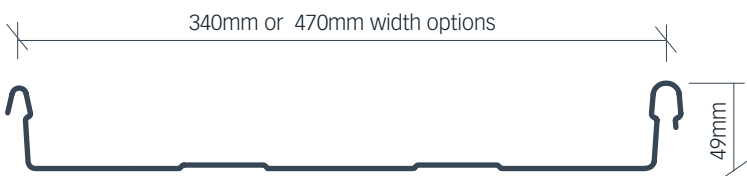
Innovative Clip System

espan® has a unique clip system that allows for concealed fixings. The espan® roofing simply locks onto the clip and allows for superior weather performance as it eliminates the need for fixing penetrations through the pan.

Another great benefit of the clip system is that espan® has great spanning capabilities and eliminates the need for an often expensive substrate. The clips are fixed directly onto the purlins at recommended spans depending on thickness and wind loadings.

espan® with two swages in the pan

Although espan is designed to have a flat pan, swaging is also available as an option. If there is concern about the risk of oil canning, this should be considered as swages strengthen the pan considerably minimising the risk of this occurring.



Manufacturing Locations:

espan® is available for purchase from all Metalcraft branch locations and the rollformer plant is containerised allowing sheets to be run on site to any length depending on project size and location.



Product Application:

The correct application of each grade of material is critical to product performance and life expectancy. Before commencing a project the user must refer to the environmental guide, the product data, the handling and storage guide and the installers guide as produced by New Zealand Steel.

Further information including load span data and graphs is also available from Metalcraft branches and freely viewable and downloadable at www.metalcraftgroup.co.nz. It is important that the requirements of these guides are taken into account when making the selection of the material to be used.

Oil Canning:

Oil canning is an inherent characteristic of gauge cold formed metal products, particularly products with broad flat areas like espan®. It is seen as waviness or distortion in the flat surfaces. Oil canning does not affect the products strength or performance. The architect, builder and homeowner needs to be aware that oil canning may affect the overall aesthetic outcome. Oil canning may occur during the rollforming process and or during installation and where thermal expansion occurs. A degree of oil canning is unavoidable. Please refer to MRM NZ Metal Roof and Wall Cladding Code Of Practice - Section 2.3.5 for more information. (www.metalroofing.org.nz).

The end result of the profile is dependent upon the quality of the timber substructure that supports it so it is critical that the roof purlins be square and flush for optimum results.

Minimum Pitches:

The minimum pitch is determined by the ability of the roof cladding to discharge maximum rainfall without water penetration through the side laps, end laps or flashings. The minimum pitch for espan® is:

- 3 degrees for sheet lengths of 40m.
- 4 degrees for sheet lengths exceeding 40m but less than 60m

The above minimum requirement has been calculated assuming peak rainfall to be less or equal to 100mm/hr.

Maximum Sheet Lengths:

Please note the maximum sheet lengths for espan® are determined by the chosen colour and roof application.

Handling and Storage:

Detailed information is included in the New Zealand Steel Installers Guide. Important considerations are as follows:

- Site Storage which ensures that sheets are kept dry and ventilated.
- Reducing risk of surface damage to surface coatings during handling, installation and by other trades.
- Ensuring that spans and pitches used are not outside those recommended by Metalcraft Roofing.
- Ensuring that correct and sufficient fasteners are used.
- Installation in contact with incompatible

Fasteners:

The selection of the appropriate fastener is essential to performance of the roof. The durability of the fastener should be, as a minimum requirement, equal to that of the roofing or cladding. If in doubt, refer to your nearest Metalcraft Roofing branch.

Recommended fixings:

Please refer to loadspan and fixing tables for recommended fixings of espan. This is available to download from www.metalcraftgroup.co.nz

Environmental:

The correct grade of material for use in various environments is given in the New Zealand Steel Environmental Guide.

Disclaimer:

As part of Metalcraft Roofing's policy of continued improvement, final specifications may vary from those contained in this publication. The company reserves the right at any time and without notice to change the design, materials or features and withdraw products from the market without incurring any liability whatsoever. This publication is issued as a general guide only and should not be treated as a substitute for technical advice. Contact with your nearest Metalcraft branch is recommended to confirm current specifications and availability.

Metalcraft Roofing are members of the Metal Rollformers Manufacturers Association Incorporated and the Roofing Association of New Zealand and this brochure should be read in conjunction with all technical information available from these associations and from the Metalcraft Roofing technical literature available on www.metalcraftgroup.co.nz



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Satisfaction guaranteed

Metalcraft Roofing has more than 50 years experience in the roofing industry which ensures your satisfaction is guaranteed. With 12 branches nationwide we pride ourselves on being New Zealand's largest and most established privately owned building product rollformer and installer with an extensive range of longrun roofing profiles, lightweight metal tiles. metal fencing, rainwater system solutions and a variety of solar generation solutions. We also have a structural steel and insulated panel division.

For more information on Metalcraft Roofing visit:
www.metalcraftgroup.co.nz

Metalcraft Roofing is part of United Industries Ltd.
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www.unitedindustries.co.nz