

Topdek® 700 – Concealed Clip

Building Product Technical Statement



Company Name & Address:

Stratco (Australia)

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Product: Stratco Topdek® 700 Roofing and Cladding



Description

Stratco Topdek® 700 utilises an ingenious concealed clip, benefits from a strong, clean finish without any visible fixings. It allows for thermal expansion and contraction, making it ideal for long length roofing in both domestic and commercial uses.

The profile of Topdek® 700 consists of strong, 42mm high, trapezoidal shaped ribs that provide strength and rigidity. Less purlins are needed thanks to the high rib height. Wide deep pans channel water efficiently from the roof making Topdek® 700 excellent for areas of high rainfall.

Designed to lock together, each Topdek® 700 sheet has a male and a female edge that forms a strong locking action when joined together. The anti-capillary shape of the female rib means water is stopped from entering through the side-laps.

The sheets lock into the specially designed Topdek 700 clips. The clips join the roof deck to the purlins and they still allow for expansion and contraction, which is important for long length roofing.

Place Of Manufacture

Australia

Design Considerations

- Effective cover 700mm
- Rib height 42mm
- Maximum Sheet Length – 24m lighter colours, 16m darker colours
- Minimum Sheet Length – 600mm
- Fixing Type – Concealed Fix with clips
- Minimum Roof Pitch – 1°
- Base Metal Thickness – 0.42mm or 0.48mm
- Yield Strength - 550 MPa
- Purlin spacing not to exceed maximum spans as per Topdek® 700 span tables, refer Stratco Topdek® 700 Roofing and Cladding Design Guide. https://www.stratco.com.au/siteassets/pdfs/cladding_topdek_700.pdf
- Allow for thermal movement of product using Stratco's Topdek® 700 design detail drawings to meet NCC Building Code.
- Ensure compatibility when using Topdek® 700 roofing and cladding with other building products to prevent accelerated corrosion.

Building Code Compliance

The product will, if used in accordance with Stratco's installation and maintenance requirements meet the following provisions of the building code:

NCC Volume 1 - For class 2 to 9 Buildings

- Section B1P1 Performance Requirements - Structural Reliability
- Section B1P2 Performance Requirements - Structural Resistance
- Section F3D2 Deemed-to-Satisfy Provisions – Roof Covering: AS 1562.1
- Section F3D5 Deemed-to-Satisfy Provisions – Wall Cladding: AS 1562.1
- Section F3F1 Functional Statements - Roof and Wall Cladding

NCC Volume 2 - For class 1 and 10 Buildings

- Section H1D7 Deemed-to-Satisfy Provisions - Roof and wall cladding: AS 1562.1
- Section H2D6 Deemed-to-Satisfy Provisions - Roof and wall cladding: AS 1562.1

Published Capacity tables in reference manuals are suitable to determine structural adequacy and serviceability of nominated products for individual projects referencing the following Australian Standards and NCC requirements:

- NCC, Volume 1, Section B - Structure, Part B1 -Structural provisions (Deemed-to-Satisfy Provisions), Clause B1D2 Resistance to actions, Clause B1D3 Determination of individual actions and Clause B1D4 Determination of structural resistance of materials and forms of construction.
- NCC, ABCB Housing Provisions, Part 2.2 - Structural provisions, (Deemed-to-Satisfy Provisions), Clause 2.2.2 Resistance to actions, and Clause 2.2.3 Determination of individual actions.

Materials are deemed non-combustible and meets requirements:

- NCC, Volume 1 Part C1, C2D10, (5) and (6)(e) and Volume 2: Section H, Part H3, H3D2, (1)(e) : AS/NZS 1530.3:1999 (R2016)

Testing and Supporting Evidence

Australian Standards Compliance

- AS 1562.1-1992 - Design and installation of sheet roof and wall cladding - Part 1: Metal
- AS 4040.0-1992 - Methods of testing sheet roof and wall cladding, Part 0: Introduction, list of methods and general requirements
- AS 4040.1-1992 - Methods of testing sheet roof and wall cladding, Part 1: Resistance to concentrated loads
- AS 4040.2-1992 - Methods of testing sheet roof and wall cladding, Part 2: Resistance to wind pressures for non-cyclone regions
- AS/NZS 1170.0:2002 - Structural design actions - Part 0: General principles
- AS/NZS 1170.1:2002 - Structural design actions Part 1: Permanent, Imposed and other actions
- AS/NZS 2728:2013 - Prefinished/prepainted sheet metal products for interior/exterior building applications - Performance requirements
- Coated steel substrate conforms with AS 1397:2021 - Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium

Warranty

It is important to choose the appropriate materials for the location to ensure they meet the minimum durability requirements of the NCC and satisfy customer expectations.

For project specific environment zone product selection contact Stratco for further information.

Warranty for wall cladding material:

- COLORBOND® Steel (up to 30 years)*
- COLORBOND® Steel Matt finish (up to 30 years)*
- COLORBOND® Steel Metallic finish (up to 20 years)*
- COLORBOND® Ultra Steel – Severe Environment (up to 30 years)*

Warranty for roofing material:

- COLORBOND® Steel (up to 45 years)*
- COLORBOND® Steel Matt finish (up to 45 years)*
- COLORBOND® Ultra Steel – Severe Environment (up to 45 years)*

*Warranties are subject to application and eligibility requirements

Finishes

Available in selected core and custom studio finishes and substrate metallic with aluminium/zinc/magnesium alloy coating:

- COLORBOND® Steel – AM100
- COLORBOND® Steel Matt finish – AM 100
- COLORBOND® Steel Metallic finish – AM100
- COLORBOND® Ultra Steel – AM150 - Severe Environment

Available unpainted with selected alloy coating:

- ZINCALUME® Steel – AM125
- TRADITIONAL GALVANISED – Z600

Installation

Packs of Topdek® 700 sheeting should always be kept dry and stored above ground level on site. If the sheets have become wet, they should be separated, wiped and placed in the open to dry.

Black lead pencils must never be used for marking aluminium/zinc, and unpainted or pre-painted steel products. The carbon in the pencil promotes corrosion which will etch the surface of the material, leaving a permanent mark. Use a pencil of any colour other than black, a marker pen, or crayon.

Cutting of pre-painted steel material should be by shear with nibblers or hand shears. The use of cold cutting saw can be used with an appropriate tungsten blade.

All debris must be swept off the job at the end of each day. Prevention of swarf damage is far easier than its cure.

Topdek® 700 sheets are laid lapped to sit neatly on the preceding sheet.

Flashings are to be installed using multi piece under and top flashings with minimal visible fixings as detailed using Stratco design details to comply with NCC Building Code.

Refer https://www.stratco.com.au/siteassets/pdfs/cladding_topdek_700.pdf

Maintenance

All roofing and cladding products are subject to the cumulative effects of weather, dust and other deposits so the performance and durability of Topdek® 700 roofing and cladding over time depends on its correct maintenance as per the Stratco - Selection, Use and Maintenance Manual.

Refer https://www.stratco.com.au/siteassets/pdfs/selection_use_and_maintenance.pdf

Tolerances

Tolerances: Sheet width +/- 1mm Sheet length +/-5mm