

#### S7 trapezoidal

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# Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme





Stratco confirms that this minimum level of assurance has been met or exceeded by the following:

NZ Metal Roofing Manufacturers Association Inc.

NZ Metal Roof & Wall Cladding Code of Practice



The following information has been provided by Stratco demonstrating how this product complies with the <u>Building Product Information Requirements</u>.

## **Technical Statement**

#### **Product Class**

CLASS 1

#### **Product Description**

Stratco S7 is a metal trapezoidal roof and wall cladding with 890mm cover and 38mm rib height that is suitable for a minimum roof pitch of three degrees. This allows for long spans and has excellent water carrying ability.

Stratco S7 has a 'square corrugated' form that has the looks and versatility to allow it to blend easily with any building style. Its strong seven rib design lends itself for use on roofing, wall cladding and fencing. Stratco S7 is ideal for architects and builders who are trying to achieve a different look, with maximum serviceability.

#### Scope of use

Stratco S7 is a metal trapezoidal roof and wall cladding with 890mm cover and 38mm rib height that is suitable for a minimum roof pitch of three degrees. This allows for long spans and has excellent water carrying ability.

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## New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

• Clause B1 Structure: Performance B1.3.1, B1.3.2, B1.3.3, B1.3.3(b), B1.3.3(c), B1.3.3(f), B1.3.3(g), B1.3.3(h), B1.3.3(j), B1.3.4(a), B1.3.4(b), B1.3.4(c), B1.3.4(d), B1.3.4(e)

Clause B1 Structure: B1.3.1, B1.3.2, B1.3.3 (b, c, f, g, h, j), B1.3.4

Span tables are in accordance with AS/NZS 1170.2:2002 and based on a maximum overall building height of ten metres and a 500 year design return period for strength limit state wind load assessment. Roofing spans specified are suitable for snow loading up to 2kPa in accordance with the New Zealand Metal Roof and Wall Cladding Code of Practice.

• Clause B2 Durability: Performance B2.3.1, B2.3.1(b)

Durability in accordance with Table 20 E2/AS1

Rain Washed Roofs

Colorsteel Endura / Colorcote Zinacore B, C, D

Colorsteel Maxx / Colorcote Magnaflow B, C, D, E

Colorsteel Altimate / Colorcote Alumiguard B, C, D, E

Walls and Unwashed Areas

Colorsteel Endura / Colorcote Zinacore B, C

Colorsteel Maxx / Colorcote Magnaflow C, D

Colorsteel Altimate / Colorcote Alumiguard B, C, D, E

• Clause C3 Fire affecting areas beyond the fire source: Performance C3.5, C3.6, C3.7



# masterspec partner

#### Company Contact Details



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Zinc/alum coated steel, Colorsteel and Colorcote products are rated as a Group 1-S material when tested in accordance with ISO 5660:2002 Part 1 & Part 2

• Clause E1 Surface water: Performance E1.3.2

Stratco S7 water carrying capacity - Refer Stratco BPIR - www.stratco.co.nz/siteassets/pdfs/bpis/stratco-s7-building-product-information-sheet.pdf

Capacity Calculation in accordance with NZ Metal Roofing and Wall Cladding Code of Practice calculators

• Clause E2 External moisture: Performance E2.3.1, E2.3.2, E2.3.7

The versatility of Stratco S7 lends itself to a wide range of details for any application. Standard design details can be accessed from the web: www.stratco.co.nz/nz/roofing/nz-roofing-and-wall-cladding/stratco-s7/

Alternative details may comply with solutions for trapezoidal roofing found in E2/AS1, or comply with the 4 "D's" Deflection, Draining, Drying and Durability.

Clause E3 Internal moisture: Performance E3.3.1

When used with an absorbent, permeable underlay, complying with NZS 2295 2006, Stratco S7 will contribute to compliance with NZBC E3.3.1. Ceiling spaces of sarked roofs, skillion roofs, barrel curved roofs, flat roofs and roofs over moisture laden environments must have provision for adequate ventilation.

- Clause F2 Hazardous building materials: Performance F2.3.1
   Stratco S7 manufactured from Zinc/alum coated steel, Colorsteel, Colorcote or pre-painted aluminium will meet the performance requirement of F2.3.1.
- Clause G12 Water supplies: Performance G12.3.2, G12.3.2(a), G12.3.2(b), G12.3.2(c)
   Colorsteel and Colorcote tested in accordance with AS/NZS 4020:2005 passed the requirements for products in contact with drinking water.

#### Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

NZ Metal Roofing Manufacturers Association Inc. (NZMRM Code of Practice) www.metalroofing.org.nz/cop

NZ Steel www.colorsteel.co.nz/resources/downloads-and-brochures/

Pacific Coilcoaters www.colorcote.co.nz/technical-information/

#### NZBC E2/AS1

Supporting evidence provided where requested will apply to the product substrate supplied for the specific project.

The Wind Capacity Tables are based on testing in accordance with AS1562.1-1992 and AS4040.0, 1 & 2-1992. Span tables have been developed by determining wind pressures in accordance with AS4055-2006 for domestic applications and AS/NZS 1170.2:2002 for all other applications.

#### **Supporting Evidence**

The product has and can make available the following additional evidence to support the above statements:



NZ Metal Roofing Manufacturers Association Inc.

NZ Metal Roof & Wall Cladding Code of Practice

#### **Use in Service History**

Test data is available for coil supplied by NZ Steel (COLORSTEEL) and Pacific Coilcoaters (COLORCOTE). Supporting evidence provided where requested will apply to the product substrate supplied for the specific project.

Both Colorsteel and Colorcote have past history of in-service use of metal long run roof and wall cladding within New Zealand.

#### **Product Criteria**

#### **Design requirements**

Roof pitch minimum 3°

Effective cover 890mm

Specify material coating to suit building location/environment

Unpainted metallic coated steel, COLORSTEEL®, including Matte, and ColorCote standard colour ranges - availability and minimum quantities may apply

Stratco flashing details for roofing and wall cladding to be used to meet NZ Building Code, E2/AS1 and NZ Metal Roofing Manufacturers Code of Practice

Allow for thermal expansion of Stratco S7 particularly in darker colours



Purlin spacing not to exceed maximum spans as per Stratco S7 span tables

Stratco S7 wall cladding to use drainage cavity batten

Ensure compatibility when using Stratco S7 roofing/wall cladding with other metal products such as copper to prevent accelerated corrosion

#### Installation requirements

Packs of Stratco S7 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.

Stratco S7 sheets should be laid lapping to sit neatly on the preceding roof sheet.

Cut pre-painted steel material by shear only — use nibblers or hand shears. Friction blades and high-speed saw blades must not be used on metal cladding.

Black lead pencils must never be used for marking aluminium/zinc, and unpainted or pre-painted steel products. Use a pencil of any colour other than black, a marker pen, or crayon.

For full installation details refer: www.stratco.co.nz/siteassets/pdfs/bpis/stratco-s7-building-product-information-sheet.pdf

#### Maintenance requirements

All roofing and cladding products are subject to the cumulative effects of weather, dust and other deposits so the performance and durability of Stratco S7 roofing and wall cladding over time depends on its correct maintenance. For roofing, normal rain washing will remove most accumulated atmospheric contaminants from the top side of roofs.

Areas that do not receive adequate rain washing (known as unwashed areas) require more extensive manual washing.

Roofing and cladding products should be manually washed by either water and a sponge or a soft nylon-bristled brush or by water blasting at pressures of no more than 20MPa. Never use abrasive or solvent based cleaners such as turps, petrol or kerosene.

#### Warrantees

**Colorsteel Warranty** 

Colorcote Warranty

# **Company Product Information**

#### Environmental

Stratco has Toitu Enviromark Gold Certification. Stratco sites recycle all steel and aluminium scrap and offcuts which can then be remelted for use in other steel products.

Steel and aluminium are infinitely recyclable so at the end of its useful life the product can be recycled and remelted for other products.

## Relationships



Environmental Choice New Zealand

# **Building Product Information Requirements**

#### Manufacturer

Legal Trading Name:

Stratco

Business Email:

technical@stratco.co.nz

Company Website:

www.stratco.co.nz

Contact Number/s: +64 03 -3389063 0800 787282

#### **Product Identifier**

STRATCO S7

#### Warnings

This product has no warnings associated with it.





Stratco S7
Product Technical Statement: 113682



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