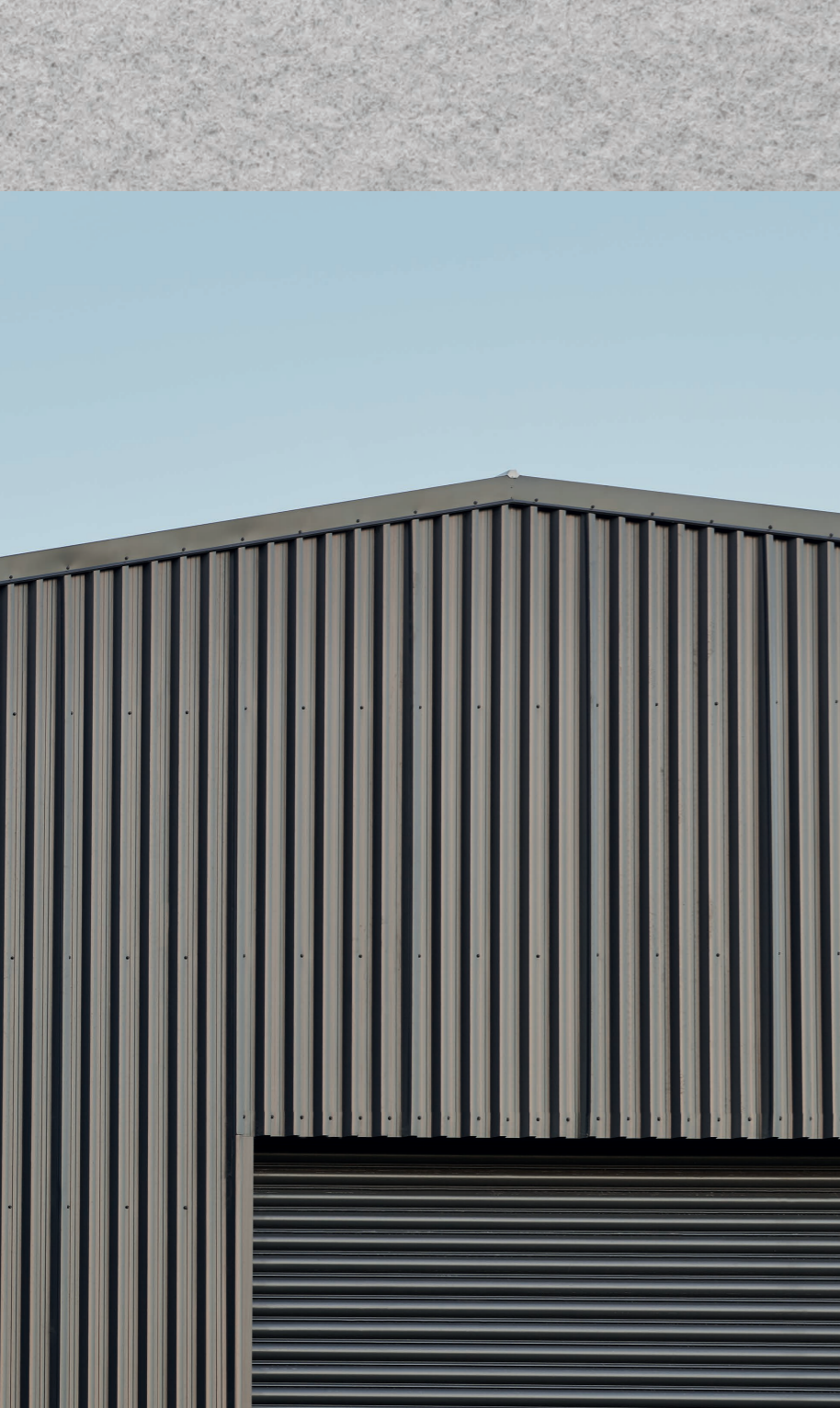


# Design Guide

FOR SUPERIOR MOISTURE MANAGEMENT

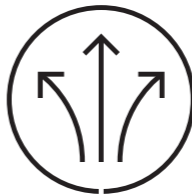




Dridex<sup>®</sup> combines the proven history and performance of COLORSTEEL<sup>®</sup> with an absorbent fleece material that's bonded to the underside of the sheet.

This thin layer of absorbent fleece completely replaces the need for traditional roofing underlay, allowing for enhanced absorption of condensation and superior air flow within the roof space. The fleece operates on the same principles as traditional underlay. It will absorb moisture when the cavity space reaches dew point and then release it when ambient conditions improve.

Following extensive trials and testing, Dridex<sup>®</sup> was introduced to the New Zealand market for use in 2016. Numerous trials and tests were completed over a five-year period to ensure the performance would exceed the requirements of the New Zealand Building Code and be suitable for our unique New Zealand conditions.



Enhanced absorption of condensation and superior air flow within the roof space

“Using COLORSTEEL DRIDEX® for the Mainfreight depot in Mount Maunganui allowed our team to lay 25m sheets in all wind conditions. No wind delays meant we could keep to a tight building programme and achieve an early enclosure”

TERRY HUNT  
TH COMMERCIAL ROOFING.



## Why COLORSTEEL DRIDEX®?

Dridex® can be laid in 90% of wind conditions

**90%**

Using Dridex® can save time and improve productivity in excess of 25%

**25%**

Dridex® has been awarded Sensitive Choice approval, helping the 1 in 6 New Zealanders affected by respiratory disease

**1 in 6**

### Productivity

Wind often prevents the safe laying of roofing, particularly in the afternoons when the wind typically increases. In Auckland, the wind will interrupt the laying of short lengths of roofing on approximately 30% of days and more frequently for longer lengths.

With no need to lay separate underlay, Dridex® can be laid in 90% of wind conditions so installation is less likely to be interrupted by high winds.

Using Dridex® significantly increases the speed of installation and means an earlier enclosure can be achieved. An independent review conducted by Beacon Pathway found that using Dridex® can save time and improve productivity in excess of 25%.

### Healthier

The Asthma and Respiratory Foundation of New Zealand reports that respiratory disease affects 1 in 6 New Zealanders. By delivering superior condensation absorption and enhanced ventilation, Dridex® creates drier and healthier internal environments. This leads to the reduction of mould and pollutants which are often associated with asthma and other respiratory tract inflammations and allergies.

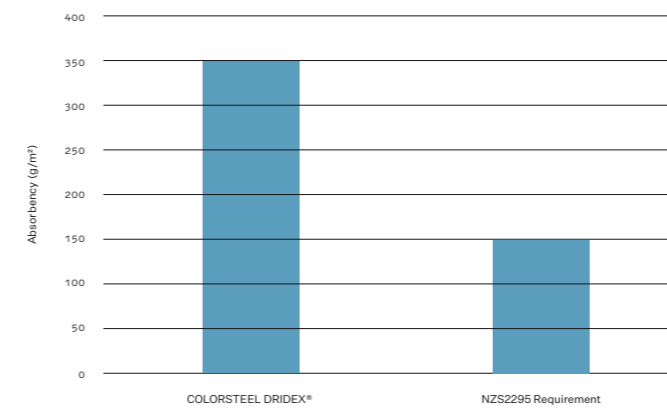
Dridex® was tested by TNO Bouw and was rated Class 1 “Impervious to Mould Growth” (Report number 2003-BS-R0238).



Dridex® has been awarded Sensitive Choice approval for its ability to manage internal moisture and resist mould growth in the ceiling cavity. A dry ceiling cavity is a warm and healthy ceiling cavity.

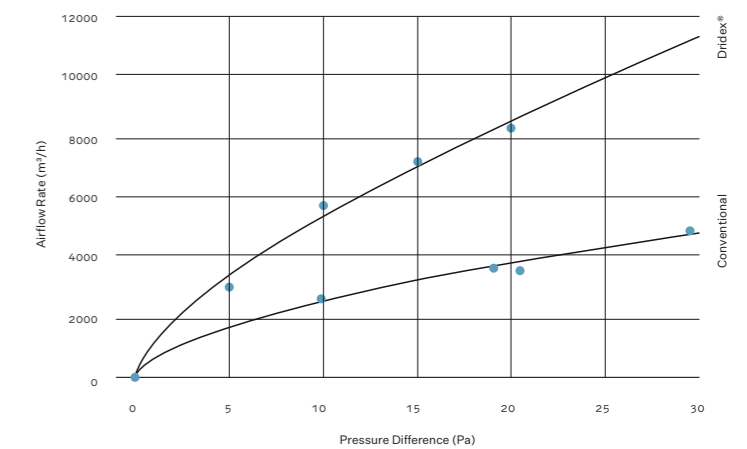
### Improved Aesthetics

Compared to alternate products, Dridex® is less susceptible to degradation from mould, wind or bird attack. The result is a long-lasting clean and tidy appearance.



### Superior Moisture Retention

The use of Dridex® will reduce the chance of excessive moisture build up and condensation run-off. When tested in accordance with AS/NZS 4201.6, Dridex® had an absorbency of 349 g/m<sup>2</sup> (BRANZ test report DC10841), nearly twice the requirement for underlays detailed in NZS 2295.



### Improved Ventilation

By removing the air barrier of traditional underlay, Dridex® reduces the chance of accumulating moisture in the roof structure and any accompanying insulation.

Tests conducted on a straight gable roof reported that using Dridex® increased the calculated effective free vent area by 133%. This approximately doubled the air flow rates through the roof envelope at all wind pressures (BRANZ test report DC2950).

## Design Considerations

Dridex® enhances natural ventilation of the ceiling cavity without the need for bulky or costly design additions.

This is especially important in flat roofs, sarked roofs, and skillion roofs, which are required by the MRM Code of Practice (10.1.4) to have specific design features to ensure natural ventilation. BRANZ testing showed that on a straight gable roof, replacing roofing underlay with Dridex® increased the effective free vent area to exceed the minimum recommendation of 1:300.

Dridex® can be fastened directly to galvanized steel purlins or dry timber. It may be laid over galvanized netting or safety mesh. For exposed roofs, the use of safety mesh may be replaced by other safety mechanisms such as temporary safety netting or harnesses, to give a clean and uncluttered soffit.

Where safety netting is not used, the use of trafficable translucent sheeting is recommended to reduce the hazard of fall-through.

Blocking the free passage of air at eaves or apexes, using profiled closures or similar, will severely reduce the ventilation attributes of Dridex® and is not recommended. If required, eaves combs can be utilised to prevent the entry of birds.

As with all roofing materials, careful design is required to prevent the accumulation of excessive internal moisture in the ceiling cavity of skillion roofs when using Dridex®. Guidance on such can be found on the Codemark certificate (CM70050) and in BRANZ publication BU610 "Preventing moisture build up in timber framed skillion roofs". Minimum roof pitch is not affected by using Dridex®.

## Scope of Use

### THICKNESSES

0.40, 0.55, 0.75 mm BMT (Base Metal Thickness). Other thicknesses available on request.

### MATERIAL GRADE

G300 or G550.

### SUBSTRATE

Dridex® can be supplied on either an Endura® or Maxx base.

### COLOURS

Available in the complete COLORSTEEL® range.

### ROOFING

Roof and canopies of all building types.

### WALL CLADDING

Lined and unlined walls of enclosed buildings.

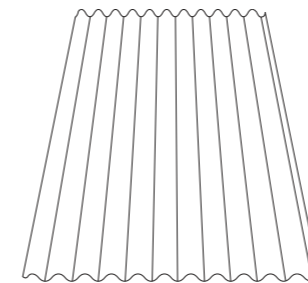
### CURVING

Can be crimp curved (trapezoidal) or roll curved (corrugate).

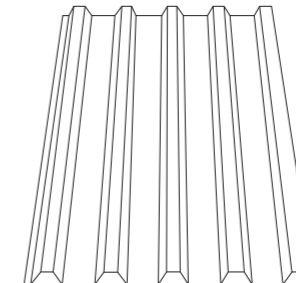
### ENVIRONMENT

Endura® Dridex®  
 — Roofing: Moderate  
 — Wall cladding: Moderate  
 Maxx Dridex®  
 — Roofing: Moderate and Severe  
 — Wall cladding: Moderate and Severe

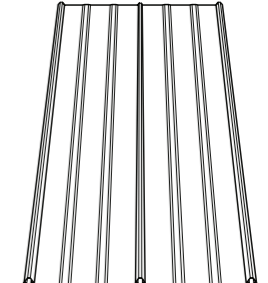
### PROFILES



All corrugate profiles



All trapezoidal profiles



Approved trough section (secret fix) profiles

COLORSTEEL DRIDEX® delivers a warmer, drier environment, offers superior air flow and saves time during installation.



### PHYSICAL PROPERTIES

FIBER **Polyester**

WEIGHT **80 g/m<sup>2</sup>**

THICKNESS **1.2 mm**

## Compliance

### COMPLIANCE

When used and installed as roof cladding in accordance with the conditions and limitations stated in this document and in the Code-Mark certificate (CM70050), Dridex® will comply with the following clauses of the NZ Building Code.

### B2 DURABILITY

Endura® Dridex® is classed as a type 4 product in accordance with AS/NZS 2728. Maxx Dridex® is classed as a type 6 product in accordance with AS/NZS 2728.

### C3 FIRE

Dridex® is rated 1-S under the NZ Building Code clause 3.4(a), representing the best performance category in relation to resistance to flammability and smoke generation (the same rating shared by Zinalume® and COLORSTEEL®).

### E2 EXTERNAL MOISTURE

The performance of Dridex® products in resisting external moisture is identical to existing COLORSTEEL® products.

### E3 INTERNAL MOISTURE

The management of internal moisture is enhanced by the action of absorbing condensation and improving natural ventilation which facilitates extraction and drying.

### HAZARDOUS MATERIALS

As stated in the Material Safety Data Sheet (MSDS), Dridex® is not a hazardous material under normal conditions. MSDS available on request.

## Conditions and Limitations

### LIMITATIONS

- Endura® Dridex® may be used in environments up to and including Moderate.
- Maxx Dridex® may be used in environments up to and including Severe Marine.
- Dridex® must not be installed in direct contact with absorbent roofing underlay, except where required at verges.
- Not recommended for standing seam roofing, flashings or rainwater accessories.

### BUILDING USE

Dridex® is recommended for the same building uses as Endura® and Maxx. Specific advice should be sought when used on buildings with aggressive internal environments, such as swimming pools, intensive animal shelters, galvanizing plants and other activities that produce harsh internal environments.

### SPECIAL CONDITIONS

The drip edges of all sheets must be treated to prevent absorption of discharging rainwater through capillary action.

## Transport and Installation

### TRANSPORT & HANDLING

#### Transport and loading

As a pre-finished cladding material, Dridex® must be handled with due care. While loading, and during transport, the bottom sheets of bundles must be protected from damage. When unloading, bundles must be placed on clean dunnage clear of the ground.

#### Handling of sheets

Inspect sheets for damage, and correct orientation of fleece clear of the overlap. Ensure hands and surfaces are clean of grease or dirt. Do not drag sheets over rough or dirty surfaces or sharp protrusions.

### SUPPORTING STRUCTURE

The supporting structure should be designed in compliance with NZ 3604 or AS/NZS 1170 to ensure structural integrity. Surfaces should be clean of grease and dirt that may stain the fleece, and free of sharp upstanding edges that will damage the under surface of the cladding.

### INSTALLATION

In addition to the recommendations and requirements of the COLORSTEEL® Installers Guide, the following requirements specifically apply to installing Dridex®:

- To prevent absorption of water through capillary action, all drip edges, including those discharging into a valley or above a roof penetration, must be treated to make them non-absorbent. This can be done by heat gun or flame, before or after installation. Some roll formers have in-line capacity to perform this end treatment during roll-forming, greatly reducing the need for on-site treatment of factory cut ends.
- Minor damage to the fleece incurred during transportation or installation will not affect its performance. The fleece has a built-in pressure sensitive adhesive and marred fleece may be re-adhered to the sheet by use of a hard rubber roller. Alternatively, a patch may be rolled on to cover the damaged area. Major damage can only be repaired by replacing the affected sheet.

### MAINTENANCE

All COLORSTEEL® products must be maintained in accordance with the COLORSTEEL® Maintenance Recommendations guide. If necessary the underside of the fleece may be cleaned with a low pressure water blaster or a soft brush application of warm water and detergent. Do not use solvent cleaners.



With no need to lay separate underlay, COLORSTEEL DRIDEX® can be installed in 90% of wind conditions

# Warranty and Assistance

## RESIDENTIAL WARRANTY OVERVIEW For roofing only

		Environmental Categories		
		VERY SEVERE	SEVERE	MODERATE
Endura® Dridex®	Perforation <sup>1</sup>	Not recommended	Not recommended	30 years
	Paint <sup>2</sup>	Not recommended	Not recommended	18 years
Maxx Dridex®	Perforation <sup>1</sup>	Not recommended	20 years	30 years
	Paint <sup>2</sup>	Not recommended	15 years	18 years

Non-residential & wall cladding warranties are eligible for a maximum warranty of 15 years.  
 \* This chart is a guide only. The above warranties are subject to further terms & conditions.  
 For full warranty details please visit [www.colorsteel.co.nz/warranty](http://www.colorsteel.co.nz/warranty).  
<sup>1</sup> Against perforation as a result of corrosion.  
<sup>2</sup> Covering the paint surface against flaking, peeling and excessive fade.

## TECHNICAL ASSISTANCE

**Phone** 0800 697 833

**Email** [specifications@colorsteel.co.nz](mailto:specifications@colorsteel.co.nz)

## TYPICAL DETAILS

Available upon request from [specifications@colorsteel.co.nz](mailto:specifications@colorsteel.co.nz)





**NOTE:** Buyers and users of New Zealand Steel Limited products and services must make their own assessment of the products for their own conditions. All queries regarding product specification, purpose or application should be directed to New Zealand Steel Limited, email [specifications@colorsteel.co.nz](mailto:specifications@colorsteel.co.nz). New Zealand Steel Limited reserves the right to modify products, techniques, equipment and statements to reflect improvements in the manufacture and application of its products. The information contained in this brochure is accurate as at August 2021 and supplied without prejudice to New Zealand Steel Limited's standard terms and conditions of sale. In the event of conflict between this information and the standard terms and conditions, the standard terms and conditions prevail. This brochure supersedes all previous brochure editions. COLORSTEEL® and Dridex® are registered trademarks of New Zealand Steel Limited. Copyright® New Zealand Steel Limited. August 2021. CSD03

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