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*This edition of the New Zealand Steel
Environmental Categories Guide supersedes
all previous editions*

ENVIRONMENTAL

CATEGORIES



QALVSTEEL™

COLORSTEEL®

Zincalume®

INTRODUCTION

New Zealand has a wide range of environmental conditions, from the harsh West Coast beaches, to the relative shelter of the Waikato farming region. Therefore, New Zealand Steel Limited offers a range of steel products which are suitable for most locations.

VERY SEVERE – ISO CATEGORY 5

50m from high water from East Coast, 100m from high water from West Coast.

Characterised by:

- Heavy salt deposits.
- The almost constant smell of salt spray in the air.
- Close to breaking surf (typically 0-100 metres) such as is found on exposed coasts.

This environment may be extended inland by prevailing winds and local conditions.

Roofing.....

Wall Cladding.....

Gutters/downpipes.....

Fascia.....

SEVERE – ISO CATEGORY 4

Characterised by:

- Light salt deposits.
- A frequent smell of salt in the air.
- Typically 100-500 metres from breaking surf such as is found on exposed coasts.
- In the immediate vicinity of large expanses of calm salt water such as harbour foreshores.

This environment may be extended inland by prevailing winds and local conditions.

Roofing.....

Wall Cladding.....

Gutters/downpipes.....

Fascia.....

MODERATE COASTAL – ISO CATEGORY 3

Characterised by:

- Little or no salt deposits.
- The occasional smell of salt in the air.
- Typically 500-1000 metres from breaking surf such as is found on exposed coasts, OR
- In the immediate vicinity of calm salt water such as estuaries.

MODERATE INLAND – ISO CATEGORY 2

Characterised by:

- No obvious marine or industrial influences.
- Typically more than 1000 metres from the exposed coasts or more than 500 metres from industrial emissions.

Roofing.....

Wall Cladding.....

Gutters/downpipes.....

Fascia.....

COMMERCIAL WARRANTY

Such as schools, warehouses and buildings, refer to New Zealand Steel Limited for details of commercial warranties. Maximum warranty offered on commercial buildings is 15 years.

IMPORTANT

- As product use is dictated by local conditions, seek advice from your roofing supplier or fixer for the best New Zealand Steel Limited product to suit your specific environment.
- Gutters should be installed according to manufacturer's instructions.
- Unwashed and high risk areas – manual washing every 3 months.

Greater than 50m from breaking surf on the East Coast.
Greater than 100m from breaking surf on the West Coast.

WARRANTIES

15 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.
15 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **10 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.

MAINTENANCE

- Rain washing
- Rain washing plus manual washing every 3 months.
- Manual washing every month.
- Manual washing every month.

15 years: covering the paint surface against flaking, peeling and excessive fade. **20 years:** against perforation as a result of corrosion.
15 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **10 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.

- Rain washing
- Rain washing plus manual washing every 6 months.
- Manual washing every 3 months.
- Manual washing every 3 months.

15 years: covering the paint surface against flaking, peeling and excessive fade. **30 years:** against perforation as a result of corrosion.
15 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **10 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.

- Rain washing
- Rain washing plus manual washing every year.
- Manual washing every 6 months.
- Manual washing every 6 months.

WARRANTIES

Not recommended

MAINTENANCE

Not recommended

15 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.
No warranty

5 years: covering the paint surface against flaking, peeling and excessive fade. **10 years:** against perforation as a result of corrosion.
5 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.

18 years: covering the paint surface against flaking, peeling and excessive fade. **30 years:** against perforation as a result of corrosion.
15 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **10 years:** against perforation as a result of corrosion.
10 years: covering the paint surface against flaking, peeling and excessive fade. **15 years:** against perforation as a result of corrosion.

- Rain washing
- Rain washing plus manual washing every 6 months.
- Manual washing every 3 months.
- Manual washing every 3 months.
- Rain washing
- Rain washing plus manual washing every year.
- Manual washing every 6 months.
- Manual washing every 6 months.



VERY SEVERE COASTAL

SEVERE COASTAL

100 metres

500

WARRANTIES

MAINTENANCE

WARRANTIES

MAINTENANCE

Not recommended

Not recommended

Not recommended

Not recommended

Not recommended

Not recommended

Not recommended

Not recommended

15 years: against perforation as a result of corrosion.

- Rain washing

No warranty

- Rain washing

15 years: against perforation as a result of corrosion.

- Rain washing plus manual washing every 6 months.

- Rain washing plus manual washing every 6 months. Painting may be advisable depending on the specific location.

10 years: against perforation as a result of corrosion.

- Manual washing every 3 months.

- Manual washing every 3 months. Painting may be advisable depending on the specific location.

10 years: against perforation as a result of corrosion.

- Manual washing every 3 months.

- Manual washing every 3 months. Painting may be advisable depending on the specific location.



MODERATE COASTAL

MODERATE INLAND

metres

1000 metres



SPECIAL ENVIRONMENTS

In New Zealand there are areas where local conditions create an increased likelihood of corrosion. Special consideration should be given to material selection in these areas. They include:

1. Geothermal Areas

Hydrogen sulphide associated with geothermal activity creates a corrosive environment. Variations in natural activity or draw-off from steam bores plus the effects of weather conditions make the high risk areas hard to define.

2. West Coast, South Island

In this area, smoke from the coal burning fires may cause high concentrations of sulphur dioxide in the air. The combination of this and the high rainfall for the region creates an aggressive situation which must be considered when choosing the appropriate COLORSTEEL® prepainted steel coating. The effects of a severe coastal environment aggravate the situation.

This area combines the most severe features of both industrial and coastal environments. Please contact your local supplier for the best COLORSTEEL® prepainted steel product to use.

3. Internal Environments

Some commercial or agricultural applications may create internal environments in which the build-up of pollutants or fumes is a potential source of corrosion. Similarly a corrosive environment can develop within sheds used for intensive animal farming. Please consult New Zealand Steel Limited for further details.

4. Industrial Environments

Close to corrosive industrial emissions and subject to heavy fallout from them. Please consult New Zealand Steel Limited for further details.

Further Assistance

Further advice on the selection of the appropriate product to suit your particular location can be obtained from New Zealand Steel Limited or your local COLORSTEEL® prepainted steel supplier.



VERY SEVERE SPECIAL ENVIRONMENTS



FURTHER INFORMATION

For additional information, literature or technical assistance, please contact:

Roofing and Cladding Sector
 New Zealand Steel Limited
 Private Bag 92 121, Auckland
 Telephone: 0-9-375 8999
 Facsimile: 0-9-375 8213
 Free Phone: 0800 100 523
 Email Address: info@colorsteel.co.nz
<http://www.colorsteel.co.nz>

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New Zealand Steel Limited, Private Bag 92 121, Auckland, New Zealand. Ph 0-9-375 8999 Fax 0-9-375 8213