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.

**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 identify.

**WEST COAST, SOUTH ISLAND**

In this area, smoke from coal burning fires may cause high concentrations of sulphur dioxide in the air. The continued use of this acidifier high content 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 worst severe features of both industrial and coastal environments. Please contact your local supplier for advice about the best COLORSTEEL® prepainted steel product to use.

**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 for intensive animal farming. Please contact New Zealand Steel for more information.

**INDUSTRIAL ENVIRONMENTS**

Environments close to corrosive industrial emissions and subject to heavy fallout from them require extra consideration. Please contact New Zealand Steel for more information.

**FURTHER ASSISTANCE**

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

**Considerations**

**IMPORTANT**

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

For applications such as sheds, warehouses and other commercial buildings please contact New Zealand Steel. The maximum warranty offered on commercial buildings is 15 years.
New Zealand has a wide range of environmental conditions.

From the harsh west coast beaches, to the relative shelter of the Waikato farming region. New Zealand Steel offers a range of coated steel products that are suitable for most locations.

### Very Severe ISO Category 5

- **ISO Category 5** starts from high water on east coast, 100m from high water on west coast characterised by:
  - Heavy salt deposits.
  - The almost constant smell of salt spray in the air.
  - Close to breaking surf with such sites typically starts 30 - 500 metres.

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

- **Recommended Coatings:**
  - **Cladding:** Rain washing, Manual washing every 3 months.
  - **Roofing:** Rain washing, Manual washing every 3 months.
  - **Guttering:** Rain washing, Manual washing every 3 months.
  - **Fascias:** Rain washing, Manual washing every 3 months.

### Severe ISO Category 4

- **ISO Category 4** characterised by:
  - Light salt deposits.
  - A frequent smell of salt in the air.
  - Typically starts 100 - 1000 metres from breaking surf such as found on exposed coasts.

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

- **Recommended Coatings:**
  - **Cladding:** Rain washing, Manual washing every 3 months.
  - **Roofing:** Rain washing, Manual washing every 3 months.
  - **Guttering:** Rain washing, Manual washing every 3 months.
  - **Fascias:** Rain washing, Manual washing every 3 months.

### Moderate ISO Category 3 & 2

- **ISO Category 3** characterised by:
  - Little or no salt deposits.
  - The occasional smell of salt in the air.
  - Typically starts 100 - 1000 metres from breaking surf such as found on exposed coasts, or in the immediate vicinity of calm salt water such as estuaries.

- **Recommended Coatings:**
  - **Cladding:** Rain washing, Manual washing every 3 months.
  - **Roofing:** Rain washing, Manual washing every 3 months.
  - **Guttering:** Rain washing, Manual washing every 3 months.
  - **Fascias:** Rain washing, Manual washing every 3 months.

### Environmental Categories & Product Maintenance Recommendations

**Recommended Coatings**

<table>
<thead>
<tr>
<th>WALL CLADDING</th>
<th>ROOFING</th>
<th>GUTTER DOWNPIPES</th>
<th>FASCIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESIDENTIAL WARRANTIES</strong></td>
<td><strong>PERFECTORY</strong></td>
<td><strong>Zincalume</strong></td>
<td><strong>EcoSteel</strong></td>
</tr>
<tr>
<td><strong>PERFECTORY</strong></td>
<td>15 YEARS</td>
<td>15 YEARS</td>
<td>15 YEARS</td>
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<tr>
<td><strong>Zincalume</strong></td>
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<td>15 YEARS</td>
<td>15 YEARS</td>
</tr>
</tbody>
</table>

- **Maintenance:**
  - **Cladding:** Not recommended in this environment.
  - **Roofing:** Not recommended in this environment.
  - **Guttering:** Not recommended in this environment.
  - **Fascias:** Not recommended in this environment.