CORROSION RESISTANCE

resistance of MiTek METAL CONNECTORS

MiTek
mitek.com.au
THE BARE FACTS ON MiTek CORROSION PROTECTION

Most MiTek nail plates and Engineered Building Products (EBPs) are manufactured from Z275 galvanised light gauge steel, (275gsm total coated thickness) and meet all of the requirements of AS1684 Australian Standards for Residential Timber Construction. These products are suitable for internal applications. For situations outside the building envelope, or more corrosive environments generally, alternatives such as stainless steel or hot dipped galvanised coated products are available.

EXPOSURE CONDITIONS

ENCLOSED
Connectors not exposed to rain or ground moisture or wind blown corrosive salts or steam.

SHELTERED
Connectors not washed by direct or wind blown rain but may be subjected to wind blown corrosive salts.

EXPOSED
Connectors are exposed to weather and washed by direct or wind blown rain.
# ZONE DEFINITIONS

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Sea Spray Zone</strong></td>
<td>Less than 1km from surf coast or 100m from bayside areas.</td>
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<tr>
<td><strong>Coastal Zone</strong></td>
<td>1km to 10km from surf coast or 100m to 1km from bayside areas.</td>
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<tr>
<td><strong>Industrial Zone</strong></td>
<td>Close proximity to industrial complexes where corrosive gases may be emitted. Eg. Port Pirie and Newcastle.</td>
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<tr>
<td><strong>Hazardous Zone</strong></td>
<td>The environment within a building may also adversely affect the durability of connectors. For example within enclosed swimming pools chloramines may cause rapid corrosion of metal products, including stainless steel. Chemical storage buildings and buildings housing animals can also pose specific corrosion problems, and will need consideration which is beyond the scope of this document.</td>
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<tr>
<td><strong>Low Hazard Zone</strong></td>
<td>Generally locations not described by the above.</td>
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## Mitek Connector Durability Flow Chart

- **Zone**: SEA SPRAY, COASTAL, INDUSTRIAL, HAZARDOUS, LOW HAZARD
- **Exposure**: ENCLOSED, SHELTERED, EXPOSED
- **Minimum Corrosion Protection**:
  - **Enclosed**: Galvanised Z275 class
  - **Sheltered**: Stainless Steel 304-2B or 445M2
  - **Exposed**: Stainless Steel 304-2B or 445M2
  - **Special requirements depending on hazard**: For Hazardous Zones, refer to corrosion specialist.
1. This chart is only to be used to determine the appropriate corrosion protection required for MiTek connectors. Other factors such as the durability of timber and the long term structural integrity of the connection is beyond the scope of this document.

2. This chart is only applicable for connectors used with timber which has not been treated with corrosive chemicals, eg. CCA, ACQ and Copper Azole treatments (If these types of treated timber are re-dried before fabrication and kept dry throughout its service life, they may be used with galvanised connectors as recommended in the ‘Connector Durability Flow-Chart’). L.O.S.P. treatments to H3 level may be used with above chart. However although L.O.S.P. treatment is not corrosive to galvanised connectors, higher levels of treatment may reduce the structural performance of some types of fastener.

3. Unless otherwise noted all MiTek connectors are manufactured using Z275 class galvanised coating.

4. Care should be taken when designing timber connections exposed to the weather. Some types of connectors may not be effective in circumstances where timber expands and contracts due to weathering. For example the use of stainless steel connector plates and C.C.A. treated timber which is exposed to the weather is not recommended as the timber expansion and contraction may cause the connector plate to back out.

5. “Soft Seal’ protective coating is a clear spray-on coating which is to be applied to metal connectors after installation. This product is available through CRC Industries Pty Ltd. To find out details of suppliers in your area contact CRC Customer Service on phone 1800 111 556

For more information about MiTek’s Engineered Building Products or any other MiTek products or your nearest licensed MiTek fabricator, please call your local state office or visit: mitek.com.au