

Corrosion of Tray-dec Sheets

General

The material in this section can be found in NZS 2312.2:2014 and SNZ TS 3404:2018. Exposed Tray-dec sheets will be subject to atmospheric corrosion. The Z275 galvanizing is not designed to protect the sheets from atmospheric corrosion for the design life of the building. Corrosion rates are determined by several factors:

- a. Corrosivity category of design location
- b. If the building is in a microclimate
- c. If the design is in an industrial zone
- d. If a coating system is used and if so the type of system
- e. Maintenance of Tray-dec sheets

Additional coating systems and repair

If exposed Tray-dec sheets are to be used in composite action, we recommend the use of an additional coating system. We recommend PPG who have provided the necessary guide to coating the underside of Tray-dec flooring. This guide can be found on the resources page of our website and can also be used for the repair

of existing corrosion damage on Tray-dec sheets. The coating system will be determined by a coating expert based on the factors stated above. The coating system is to be applied before the installation of Tray-dec.

Accessibility and design considerations

Tray-dec recommends the minimum height from the ground to the bottom of exposed Tray-dec is 600mm. The suggested height allows the underside of the trays to remain accessible for annual maintenance and is at a level above the ground that can be assumed as a "damp" environment instead of a "wet" environment which would increase the corrosion rate of galvanizing material. The Z275 galvanizing on exposed Tray-dec sheets plus the use of a coating system is not sufficient to provide a 50-year working life without maintenance. It is in the client's best interest to design an exposed Tray-dec system as sacrificial formwork to avoid any requirements for future maintenance and/or painting. Tray-dec flooring that is designed to be sacrificial (no composite action) does not require any maintenance.

