

# Coating Steel

## Why coatings on steel are an investment not a cost

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At Pengelly's, we pride ourselves on using the correct coatings system to safeguard the steel we build and install.

We are constantly being asked by our clients and consultants for guidance on coating steel.

We use the system based on the statutory standards and building codes as a CERTIFIED STEEL FABRICATOR (SFC), we take this very seriously as we meet SNZ TS 3404:2018. The Standard has been developed to ensure customers get the correct coating based on their individual situation. Corrosion is a big issue in Auckland due to proximity to the sea. So choosing the right system takes industry knowledge and can be more costly than just using a red oxide primer in many cases. One thing we have learnt over the years is coatings are site specific.



There are many paint systems for Steel, and we are guided by the Standard so no surprises in the years ahead. ALL the paint manufacturers are very careful with their documentation as poorly applied and/or selected coatings can fail when not specified or utilised correctly.

The variation in environment, microclimate, changes in procedures of use, application, building structure and standard of the building work can cause failures or unsatisfactory results. Steel is hidden in many cases, so rust and corrosion are not always visible.

When we quote projects, we try and detail a coating system that is matched to the application rather than just the cheapest system. For example, a combination of galvanising and paint are often the only solution but come at a higher cost. Therefore, we ask to see the paint specification when quoting.

Micron levels or thickness of paint coatings are all covered in the Standard, and we measure these as part of our QA system (SFC), and Pengelly's produce coating schedules for approval by the consultants.

Steel that has an architectural coating on top of corrosion protection are even more challenging as customers need to understand the durability issues. Different products require maintenance programmes to protect their investment. Remember, some paints require less maintenance so the initial cost can be a poor guide to value. Pengelly's can give advice on this.

Painting Galvanised steel (HDG) and Thermal Sprayed Zinc (TSZ) need to be specified before galvanising, as again, special preparation is required when painting.

Finally, intumescent paint or fire rated paint. This is traditionally applied on site but thought needs to be given to the preparation and primer/undercoat used. The wrong primer will be an issue with many fire rated paints so we will work with you to get this right. In some cases, fire rated GIB is a better



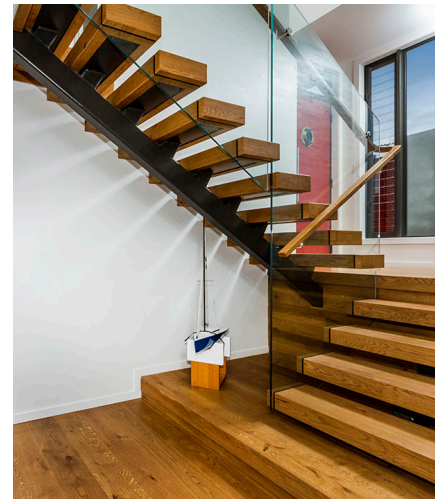


option than painting so a few things to consider. Read our [guide to fire rated paint](#) on our blog page or email us for a PDF.

We have not covered paint brands or the many different types of paints you can use to meet the Standard or printed the Standard as it is 200 pages of reading! Pengelly only use global paint brands with a proven QA system and the same with our applicators.

Pengelly's are happy to give advice on coatings as after 35 years in the business and our investment in compliance with SFC, we can help guide you on getting your coatings right as it can be expensive when it goes wrong.

For any advice, please ask Aaron, Jim or our Resolve drafting & compliance team.



## About Pengelly Engineers

A full service structural steel fabricator in Auckland with estimating, 3d modelling, fabrication and installation service specialising in residential steel projects with over 1000 house lots of steel installed in the last 5 years. Visit us on the web [www.pengellyengineers.co.nz](http://www.pengellyengineers.co.nz).



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