Long awaited Australian Standard for design and durability of hot dip galvanized steel published.

On December 19, 2014 Standards Australia released the long awaited revision to the *Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings* (**AS/NZS 2312**). The revised Standard has now been split into two parts, with Part 1 covering paint systems and Part 2 covering hot dip galvanizing (HDG).

Both new Standards use the same definitions in AS 4312 for corrosivity categories in Australia, but now clearly recognise that the design process and durability of the two products are very different. Designers wishing to specify HDG need only use two Standards; one covering the design and durability of HDG steel **(AS/NZS 2312.2)**, and the other dealing with manufacturing process and tolerances **(AS/NZS 4680)**.

AS/NZS 2312.2 references the latest international corrosivity and design Standards for HDG. A single table is provided for designers to compare the expected **durability** of different galvanized products, allowing for a faster product selection process.

Australian Hot Dip Galvanizing Standards

Design & Durability

AS/NZS 2312.2:2014

Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings – Part 2: Hot dip galvanizing

Manufacturing

AS/NZS 4680:2006

Hot-dip galvanized (zinc) coatings on fabricated ferrous articles

With a specified minimum HDG thickness of 85µm, AS/NZS 2312.2 can be used to estimate this bridge rail will be protected from rust for over 50 years in a C3 (medium) corrosivity category.

The **durability** of a HDG coating is now calculated from the minimum average coating thickness in AS/NZS 4680, which also means non-standard HDG thicknesses can be easily assessed for estimated life to first maintenance.

AS/NZS 2312.2 also includes **design** advice on how the chemistry of some steels can be used to develop thicker coatings or when more **durability** is required than standard. In addition a detailed section on the **design** of duplex coatings (paint over HDG) is included, with two performance options for durability (aesthetic and corrosion).

For engineers and fabricators the **design** details are extensive and pictorial advice on good design practice provides clear instruction. Appendices to the Standard also cover corrosion in different environments, including bimetallic corrosion and the interaction of HDG steel with soil, concrete, water, chemicals, and wood.

More information and free training on the use of AS/NZS 2312.2 is available from the GAA (www.gaa.com.au). AS/NZS 2312.2 can be purchased from SAI Global (http://infostore.saiglobal.com/store/).

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