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Reference	NR/L3/CIV/140/172N
Issue	2
Publication date	6 th June 2009
Compliance date	5 th December 2009

MODEL CLAUSES FOR CIVIL ENGINEERING WORKS

SECTION 172

PROTECTIVE COATING OF NEW STRUCTURAL STEELWORK

NOTES TO SPECIFIER:

These notes do not form part of the Specification.

Protective coating system

172.1 *Unless there are any over-riding economic reasons for not doing so, the protective coating system shall include a thermally sprayed metal or hot dip galvanized coating.*

Sprayed metal coatings

172.2 *For general usage, a sprayed aluminium coating is preferred to a sprayed zinc coating. However, where the structure will be subject to contamination from salt and/or be subject to impact (such as from a bridge strike) a sprayed zinc coating shall be specified. (See 6.1.2 of NR/GN/CIV/002.)*

A sprayed aluminium metal coating shall be specified where a thermally sprayed metal coating is specified for the faying surfaces of High Strength Friction Grip (HSFG) bolted and other similar connections.

Hot dip galvanizing

172.3 *Galvanizing is a well-proven and acceptable method of protecting new steelwork against corrosion.*

Advice should be sought, for example from the Galvanizers' Association, regarding the suitability of shapes and thickness of steelwork sections for hot dipped galvanizing. Usually, the minimum recommended thickness of a section suitable for hot dipped galvanizing is 4 mm.

Where visual considerations are not important and the size and form of the item allows galvanizing, consideration of whole life costs may allow a galvanized coating to be the sole protective treatment. However, in such cases, as a minimum galvanizing shall meet the requirements of BS EN ISO 1461 for the environments defined in BS EN ISO 12944-2.

The application of organic coatings to newly galvanized steel items will provide additional protection against corrosion.

Interfaces between new and existing steelwork

172.4 *At the interfaces between new and existing steelwork (excepting wrought iron) the new steelwork should be coated with a protective coating system that is similar to or compatible with that on the existing structure. The protective coating system should be selected from 176B and applied by the fabricator in the shop prior to dispatch to the Site.*