

The following information is associated with Network Rail Standard:
[NR/L3/CIV/140/170N](#) Issue 2

Additional Content Access

Click the links below to access non PDF related content associated with this standard.

Word Document

- [NR/L3/CIV/140/170N](#)

If you have any questions, or need assistance, please contact [IHS Support](#)

Information accessed via the links above is the property of the Copyright holder

IHS Additional Content Page

Reference	NR/L3/CIV/140/170N
Issue	2
Publication date	6 th June 2009
Compliance date	5 th December 2009

MODEL CLAUSES FOR CIVIL ENGINEERING WORKS

SECTION 170

GENERAL REQUIREMENTS FOR PROTECTIVE COATINGS

NOTES TO SPECIFIER:

These notes do not form part of the Specification.

Specifications and Guidance Notes

170.1 *NR/L3/CIV/039 provides performance requirements and technical details on protective coatings and systems for steel, iron, non-ferrous, timber, and concrete and masonry substrates. NR/L3/CIV/040 provides a specification on the use of protective treatments and guidance on these requirements is provided in NR/GN/CIV/002.*

These standards also provide information on the use of intumescent coatings for steel and timber structures. It is a requirement of NR/L3/CIV/040 that an epoxy intumescent coating is applied to structural steelwork that is exposed to the weather.

Additional guidance on the application of paints and varnishes on steel structures is provided in various parts of BS EN ISO 12944.

Copyright Network Rail

Reference	NR/L3/CIV/140/170N
Issue	2
Publication date	6 th June 2009
Compliance date	5 th December 2009

Selection of protective coating system

170.2 *Wherever possible, the Specification for a protective coating system should provide a performance-based requirement so that the optimum solution in terms of whole life costs can be selected.*

Factors that should be considered when selecting a protective coating system for a particular application are;

- 1. The required life of the structure, housing or enclosure and of the protective coating system.*
- 2. The time to the first maintenance of the system.*
- 3. The time available for the preparation of the substrate and the application and curing of the materials.*
- 4. The location of the work site, and ease of access for plant, materials and labour.*
- 5. The need for working in confined spaces.*
- 6. The nature and condition of the substrate (such as its porosity and surface finish) and the presence of any existing protective coatings.*
- 7. The geometry of the work piece or component; for example, steelwork decks with awkward details such as stiffeners and bolted connections.*
- 8. The existing or anticipated environment against which the structure, equipment, housing etc. has to be protected.*
- 9. The requirements for working safely, such as those defined in Health and Safety legislation.*

Sealants should be selected in accordance with BS 6213. Where necessary, advice on the selection of a sealant should be sought from the British Adhesives and Sealants Association.

Coatings

170.3 *Ideally a protective coating product/system will provide a nominal 25 year service to its first maintenance. However, products and systems that had been tested under the 3000 hours (15 year) protocol under RT/CE/S/039 (RT98) may continue to be specified (see 8 of NR/L3/CIV/039).*

Coatings shall not be used that;

- 1 are particularly difficult to apply,*
- 2 fail to achieve the specified film thickness,*
- 3 produce an unsatisfactory standard of finish,*
- 4 dry slower than specified in NR/L3/CIV/039 for the particular Item number,*
- 5 appear to be of inferior quality in any way.*

In the event of any of the above, work should be stopped immediately and the source of the problem identified and rectified.