

Statement

The combination of anti-corrosive primers and decorative top seals are commonly used with intumescent coatings to provide both, corrosive protection and fire protection to steel structures .

During the transportation and erection phase of projects, these applied systems are often subject to damage. When damage occurs, it is vital that the applied coating systems are fully repaired. Similar damage may occur during the life of an applied system due to mechanical damage, wear or tear or unforeseen circumstances e.g. flooding etc. For the same reasons, the system must be repaired as soon as practical.

There are three scenarios in which the applied coatings systems can be damaged.

1. Damage occurs to the entire system; topcoat, intumescent and primer- leaving the substrate exposed.
2. Damage occurs to both the topcoat and intumescent.
3. Damage occurs to the topcoat only.

In order to repair these types of damage, please follow the below repair specifications.

SC900 Series Repair Specification

Scenario 1 Repair

- Surface preparation – Blast clean to Sa2.5 (BN ENO ISO 8501-1 2007) or Mechanical/hand preparation to ST3/ST2 respectively. Ensure not to polish the surface.
- Ensure the surface is clean, dry and free of any form of contamination.
- If C1/C2 apply the SC900 Intumescent coating at the required DFT, based on the corresponding Hp/A factor for the steel section and fire rating directly over the steel substrate.
- If Above a C2 Apply original primer at the same thickness as the original primer specification.
- Ensure that the primer has dried sufficiently.
- Apply the SC900 Intumescent coating at the required DFT, based on the corresponding Hp/A factor for the steel section and fire rating.
- Ensure that the SC900 has dried sufficiently.
- Apply the TS134 Top Seal at the original specification thickness.

N.B: If the applied specification does not require a primer, then stage 3 above can be omitted, but care should still be taken to ensure that the exposed steel is clean dry and free from contamination prior to the application of SC900.

Scenario 2 Repair

- Ensure the Primer is free from all forms of contamination.

- Apply the SC900 Intumescent coating at the required DFT, based on the corresponding Hp/A factor for the steel section and fire rating.
- Ensure that the SC900 has dried sufficiently.
- Apply the TS134 Top Seal at the original specification thickness.

N.B: If the applied specification does not require a primer, then stage 1 above can be omitted, but care should still be taken to ensure that the exposed steel is clean dry and free from contamination prior to the application of SC900.

Scenario 3 Repair

- Ensure the SC900 Intumescent Coating is free from all forms of contamination.
- Apply the TS134 Top Seal at the original specification thickness.

Note:

For small areas NULLIFIRE SC900 Repair kit is recommended, and for larger areas, the original SC900 product applied to the steel should be used.

Areas where repairs are carried out using a different method of application from that originally used may be visible as a repair and this should be considered prior to commencing work.

Topseal colours can vary from batch to batch, even when tinted to recognised colour ranges. It may therefore be necessary to apply the topseal to an affected section rather than just the small area which is repaired.

SC600 and SC800 Series Repair Specification

Scenario 1 Repair

- Surface preparation – Blast clean to Sa2.5 (BN ENO ISO 8501-1 2007) or Mechanical/hand preparation to ST3/ST2 respectively. Ensure not to polish the surface.
- Ensure the surface is clean, dry and free of any form of contamination.
- Apply original primer at the same thickness as the original primer specification.
- Ensure that the primer has dried sufficiently.
- Apply the SC600/SC800 Intumescent coating at the required DFT, based on the corresponding Hp/A factor for the steel section and fire rating.
- Ensure that the SC600/SC800 has dried sufficiently.
- Apply the specified Top Seal at the original specification thickness.

SC600 and SC800 Series Repair Specification Cont.

Scenario 2 Repair

- Ensure the Primer is free from all forms of contamination.
- Apply the SC600/SC800 Intumescent coating at the required DFT, based on the corresponding Hp/A factor for the steel section and fire rating.
- Ensure that the SC600/SC800 has dried sufficiently.
- Apply the specified Top Seal at the original specification thickness.

Scenario 3 Repair

- Ensure the SC600/SC800 Intumescent Coating is free from all forms of contamination.
- Apply the specified Top Seal at the original specification thickness.

Where Nullifire coatings have been damaged due to transportation, erection or site trades, then all such areas of damage must be repaired.

Clearly in reality, there will be many occasions where there are only isolated small chips which would be covered by the surrounding intumescent in the event of a fire, and so our opinion on such occasions would be not to carry out repair unless aesthetics or prevailing site conditions demanded it.

A small chip can be classed as up to the size of 50 mm x 50 mm area and this should be no more than 1% in any area- this roughly equates to damage equivalent to the size of 50 mm x 50 mm in an area the size of an A4 piece of paper.

Where the SC900 system has been applied and small chips have occurred, apply SC900 on-site intumescent steel coating repair kit.

Where SC600/SC800 series has been applied use Nullifire NF101 to repair small chips. Please note that NF101 is not suitable for use with SC900.

All coatings should be applied in accordance with the latest technical data sheets available from www.nullifire.co.uk

Technical Service

Nullifire has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Technical Services on 01942 251400.