

NTN 025

Procedure for extending shelf life of intumescent coatings

Nullifire
Smart Protection

Purpose

The purpose of this document is to offer advice on how to assess the product in question to determine if the intumescent is still fit for purpose.

By carrying out this procedure to determine the suitability of the intumescent, we can potentially extend the shelf life for up to three months.

In all cases the customer must ensure that the intumescent coating has been stored in accordance with Nullifire's recommendations.

Tremco CPG UK Ltd understands that in some instances, there is a requirement to extend the shelf life of intumescent coatings. Cases may include, where projects have been delayed.

As a result of this many customers and main clients would like the reassurance that the intumescent coating can still be used and are still fit for purpose.

Scope

Due to the composition of intumescent coatings, extensive history of use and understanding of their performance, it is not necessary to conduct fire performance testing to extend shelf life. This procedure focuses solely on the application properties to determine the suitability of the coating.

Procedure

Open a tin from each manufactured batch, where the shelf life is sought to be extended, and assess the following way:

Check the consistency of the intumescent coating in the tin to see if it's either mobile / fluid, or thick / set-up.

- If mobile / fluid, mix till fully homogenised, then move onto section 2.
- If thick / set up, try to mix.
- If coating cannot be mixed, add water/solvent to a maximum of 5% by volume.
- If coating can be mixed and can be fully homogenised, move onto section two.
- If the intumescent coating will not mix to a fully homogenised fluid state, the material is not fit for purpose and the shelf life cannot be extended.
- Specific care should be taken when using SC900 series hybrid intumescent for sedimentation at the bottom of Part A cans. If hard sedimentation can not be fully reconstituted, it must be disposed of according to local practice.

Prepare the application equipment for the intumescent material as per application instructions then apply the material to a pre-primed steel section/plate and assess as follows:

● Sag Tolerance

Apply the intumescent material to a vertically positioned flat steel plate at the recommended WFT as recommended by the TDS. If the intumescent coatings sag resistance is below recommended WFT, the material is not fit for purpose.

● Application Characteristics

Continue to apply the material and assess/monitor application characteristics in terms of fan pattern, pump pressures, tip size being used which give the best possible results.

● Records

The following should be recorded from the assessment completed:

1. Product name and batch number
2. Application conditions, such as temperature, humidity dew point etc.
3. Application equipment, such as make and model, hose length etc.
4. Assessment results
5. Assessment location details, including assessor details.

Recommendation

On successful completion of assessment, notify Nullifire Intumescent Research and Development department (Coventry) and provide documentation. On proof of assessment, Nullifire will extend the shelf life of the intumescent for up to 3 months. This may be repeated to give a maximum assessment of twice for any individual batch.

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 +44 (0) 1942 251 400.

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