# Promat

Promat Cafco spray applied fire protection to structural steel - removal of Polyurethane topcoats

# **Technical Data Sheet 129** April 2017

## **INTRODUCTION**

#### Sprayed Fire Resistive Materials (SFRM's)

Structural steels can be shipped and delivered to site with a primer coat, intermediate coat and a topcoat system already applied so that the steels are corrosion resistant prior to transportation and are already aesthetically acceptable to the client.

In the rare occasions where Polyurethane (PU) topcoats are found to be have already been applied as the topcoat paint, they have to be removed.

SFRM's include cementitious, gypsum and mineral wool coatings of various densities. SFRM's cannot be applied directly onto PU topcoats, although there is no reaction between cementitious sprays and the PU topcoat paint, the gloss surface of PU topcoat paint is too smooth and shiny and good adhesion of the SFRM cannot be achieved.

Ideally, it is important to avoid encountering structural steels with PU topcoats by advising at an early stage in a project / build program that SFRM's cannot be applied onto PU topcoats and that if PU topcoats are applied, they are difficult to remove.

Steels which have a primer coat and a compatible second intermediate coat (such as a two pack epoxy primer) are ideal for application of SFRM's. Topcoats of any kind are not required if they are going to be coated in a SFRM.

#### **Removal of PU topcoats**

For successful application of SFRM's. PU topcoats must ideally be completely removed by sweep blasting the PU paint layer off, taking care to only remove the PU topcoat paint layer, and not the primer paint layers beneath it.

Alternatively to sweep blasting, the PU topcoat surface must be thoroughly mechanically abraded all over the entire surface using power sanding tools so that the shiny gloss finish of the polyurethane paint is removed from the entire surface.

Promat Cafco SFRM's can be applied when the PU topcoat has been removed or thouroughly abraded all over.

After the PU topcoat surface has been removed or thoroughly abraded, the particular Cafco SFRM being used must be applied in accordance with the instructions stated in the relevant SFRM product Application Manual for application onto a compatible primer.

If the PU topcoat has been removed down to the next paint layer by sweep blasting, care must be taken to check that the revealed primer type is compatible with the Cafco SFRM being applied. Consult Etex Building Performance technical team for advice.

### Promat Cafco Sprayfilm WB3 / Intumescent paint coatings

Intumescent paint coatings cannot be applied onto PU coatings under any circumstances. The PU primer must be removed by sweep blasting back to bare steel.

The bare steel must be primed with a compatible primer to maximum 70-100 microns thickness. The Sprayfilm WB3 can be applied when the primer has cured.

**AUTHORITY: PROMAT RECOMMENDATION** 



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