Introduction

The Promat FENDOLITE® MII system is used in the petrochemical industry to protect structural steels, storage vessels, vessel skirts and saddle supports for up to 240 minutes hydrocarbon fire protection.

Sprayed fire resistant materials (SFRM's) such as Promat FENDOLITE® MII have a long history of use in petrochemical plant where they inevitably undergo natural aging and endure varying levels of in-service use and abuse. In particular, experience has shown that PFP applications over insulated vessels and spheres may be subjected increased levels of flexural deformation and associated weathering.

Resistance to Flexural Deformation of the Substrate

Virtually all surfaces to which Promat FENDOLITE® MII is applied are liable to experience some degree of elastic flexural deformation in the normal operation. A particularly onerous application is where the Promat FENDOLITE® MII system is applied over thermal insulation arrangements on storage vessels and supports.

Greater levels of elongation, compression and distortion caused by movement of the vessel and insulation composite may occur. This may result in hairline fractures of the Promat FENDOLITE® MII system.

Weather Resistance

Where the surface coating and Promat FENDOLITE® MII system are colder than the ambient air temperature water vapour may pass onto and / or into the coatings and condense. Subsequently the water may freeze. The effect of exposure to these environmental conditions (weathering) may be an accelerated deterioration of the applied system.

Selection of topcoat system

To protect the Promat FENDOLITE® MII fire protection system against the negative influence of forced movements and weathering, a solution is to use a topcoat system. Promat recommend the use of the Sikalastic (in the UK sold under the brand name Decothane) topcoat system in the following situations:

- Promat FENDOLITE® MII on vessels and spheres,
- Promat FENDOLITE® MII over a mineral wool, foamglas or other insulation material,
- Promat FENDOLITE® MII on steel structures in a sea climate or harsh climate, e.g. with external exposure to negative temperatures, internal exposure to temperatures below

ambient temperature, exposure to high humidity or liquid water, possible presence of "free" water (dew, condensation or rain water) on surface of Promat FENDOLITE® MII.

For the application of Sikalastic (Decothane), refer to Sikalastic application procedure (EIDS 033)

In less onerous situations, such as when Promat FENDOLITE® MII is applied on steel structures in a less aggressive environment, PROMAT® TOPCOAT 200 can be applied. For a durable application of PROMAT® TOPCOAT 200 it is crucial that the moisture content of the Promat FENDOLITE® MII is sufficiently low at the time of application.

For the application of PROMAT® TOPCOAT 200, refer to PROMAT® TOPCOAT 200 application procedure (EIDS 030)

The information given in this Application Procedure is based on practical experience, independent and other tests and represents, in Promat's opinion, the best technical advice available. Since the products are applied under circumstances beyond our control, Promat can accept no direct or consequential liability, whether in contract or in tort, for the interpretation of such recommendations and reserves the right to modify the recommendations as necessary. Should it be unclear as to the meaning of any of the instructions given above, or if further information is required, please consult Promat.