Introduction

The following general procedure is applicable to four side concrete encased steel columns and structural concrete columns. Unless directed to the contrary in this proposal Promat FENDOLITE® MII shall be mixed and applied in accordance with the current Promat FENDOLITE® MII & Promat FENDOLITE® TG Energy Industries Application Manual.

Inspection of concrete surfaces

All concrete surfaces to be protected shall be in good condition be free from release agents, oil, grease, dirt, dust, grime or any other contaminants. If there is any doubt as to the condition of the concrete substrate then a mechanical reinforcement mesh should be utilised.

Attachment of mesh retention pins

A reinforcement mesh may be installed within the Promat FENDOLITE® MII coating to enhance the impact resistance of the applied system or where there is a risk of a blast / explosion preceding a fire. To aid the installation of the mesh, self-adhesive pins (if application is to all 4 sides of the column) or Hilti type shot-fired pins should be installed at maximum 400mm centres.

PROMAT® SBR Bonding Latex / Promat FENDOLITE® MII keycoat

The keycoat is a 50 : 50 mix of PROMAT® SBR Bonding Latex (8.5 litres) mixed with water (8.5 litres), the total 17 litres of watered-down PROMAT® SBR Bonding Latex is then mixed with the 20kg of Promat FENDOLITE® MII. Apply the keycoat so as to give a 20-50% coverage of the background with blobs of material standing off approximately 5mm from the surface. Ideally the material should be flicked on manually using a trowel, or sprayed with a low throughput using an 11mm nozzle and a low air pressure of approximately 10 psi. The Keycoat must be allowed to cure and dry thoroughly before proceeding with the application of the Promat FENDOLITE® MII. Typically this will take between 24-36 hours depending on the environmental conditions.

Installation of mesh reinforcement

If a mesh reinforcement is deemed necessary Promat propose the use of 50mm x 50mm PROMAT® Plastic Coated Galvanised Mesh which should be attached to the previously fixed shot fired or adhesive pins and should be pulled away from the concrete surface so as to lie substantially within the mid third of the Promat FENDOLITE® MII thickness to be applied. A minimum overlap of two mesh apertures is required at all joins which should be securely tied with galvanised wire ties or twisting the cut ends of the mesh together at 150mm centres.

NOTE: No more than three layers of mesh must overlap at any one point.

Application of Promat FENDOLITE® MII

Spray apply Promat FENDOLITE® MII to achieve the specified thickness. Promat FENDOLITE® MII applied without mechanical reinforcement should be applied to a nominal thickness of 25mm. If

mechanical reinforcement is specified then this thickness must be increased to 30mm to ensure that the mesh reinforcement is fully encapsulated within the Promat FENDOLITE® MII.

Where possible, Promat FENDOLITE® MII shall be applied as a single coat to the required thickness. The final coat shall be at least 8mm thick to avoid cracking. **Promat FENDOLITE® MII must not be trowelled flush with the reinforcing mesh (if used) as this can create a plane of weakness.** The suggested finishing technique is to level the surface with a steel float to close down the surface.

Water shedding

All top horizontal surfaces should be sloped to shed water.

Promat FENDOLITE® MII / steel junctions

Promat FENDOLITE® MII / steel junctions shall be sealed by cutting a 'U' shape into the material and applying a polysulphide or silicone based mastic sealant.

NOTE: Promat recommend that the mastic seal is not applied until after any final surface treatment.

Final surface treatment

Promat propose that on curing and drying of the Promat FENDOLITE® MII, the surface is treated with a Promat approved topcoat paint system. The selected topcoat system must be applied strictly in accordance with the manufacturer's recommendations.

It is necessary to maintain the correct environment conditions as stipulated in our current Promat FENDOLITE® MII & Promat FENDOLITE® TG Energy Industries Application Manual immediately before, during and after the particular application.

Refer to Energy Industries Data Sheet EIDS 030 for PROMAT® TOPCOAT 200 - General Guidance for Application, Inspection, Maintenance and Repair.

Cold / Wet Weather Where the application conditions are such that the above application criteria cannot be fully achieved, Promat recommends the use of an alternative solution using Sikalastic (Decothane). Refer to Energy Industries Data Sheet EIDS 033 - Sikalastic (Decothane) Application Procedure.

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.