Introduction

The following general procedure is applicable where old concrete is retained on steel vessel skirts. Unless directed to the contrary in this technical guidance document, 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 and shall as a minimum preparation be jet washed at 200bar. Higher pressure / more aggressive washing may be required if the concrete surfaces are heavily contaminated. If cracks in the concrete substrate are not filled / repaired they will be mirrored in the finished Promat FENDOLITE® MII surface.

Attachment of mesh reinforcement

Mesh reinforcement shall be installed within the mid third of the Promat FENDOLITE® MII as per standard practice. The recommended mesh is 100mm x 100mm x 2mm galvanised hexagonal mesh or 50 – 75mm square x 2mm galvanised welded wire mesh. It may be wrapped around the exterior skirt surfaces or may be attached to self-adhesive pins, drilled fixings or Hilti type shot-fired pins may be installed at maximum 400mm centres. Application to interior surfaces will be easier if fixings are used. A minimum overlap of one mesh aperture is required at all joins which should be securely tied with galvanised wire ties or twisting the cut ends of the mesh together at a maximum 150mm staggered pitch.

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

If permitted, Promat recommend that stud welded pins or welded nuts are attached to the skirt at maximum 400mm centres on a staggered pitch in order to assist the location of the mesh reinforcement. If welded fixings are not permitted and the skirt is of such dimension that wrapping and securing mesh to itself is not practical, the wire reinforcement may be fitted to adhesive-fixed insulation pins providing they are only used as a temporary location aid since their performance in fire conditions will not be adequate.

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.

Application of Promat FENDOLITE® MII

Spray apply a further coat of Promat FENDOLITE® MII to achieve the specified thickness. 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**, 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 and sealing of Promat FENDOLITE® MII / steel junctions

Top surfaces and all terminations of Promat FENDOLITE® MII against steel must be sloped to shed water. Promat FENDOLITE® MII /steel junctions shall be sealed by cutting a 'U' shape into the material and applying a polysulphide or silicone mastic sealant. A mastic seal shall also be installed at the Promat FENDOLITE® MII / concrete plinth junction to prevent standing water being absorbed.

NOTE: We recommend that the mastic seals are not applied until after 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 Promat Energy Industries Data Sheet EIDS 028 for the selection of an appropriate topcoat.

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.