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Reinforcing Cargo Tank Hold Decking:

The Following ThistleBond section is concerned with the Reinforcing of Cargo tank bottoms and should be read in conjunction with the Technical Data sheets of the following ThistleBond Products: Super Metal Rebuilding System, Extended life Super Metal Rebuilding System, Ceramic Carbide Wearing Compound, Abrasion Resistant Ceramic Carbide Fluid.

COMMON DEFECTS

Erosion of Cargo Tank bottom plating by : Abrasion, due to entrained solids or liquid cargoes, Corrosion, due to water contamination in liquid cargoes, Cavitation damage.

PREPARATION

All work should be carried out in strict accordance with the relevant ThistleBond Technical Data Sheet. The actual product selection should be based upon the nature and severity of the damage and the application technique utilised. Should there be a requirement to add strength to the area, then suitable steel doubler plates should be pre fabricated.

SURFACE PREPARATION

All surfaces should be washed with ThistleBond Universal Cleaner in order to remove all dirt and grease. Grit Blast all surfaces to be treated using an angular abrasive to give a surface finish of **Swedish Std SA 2 1/2 ensuring a profile of 75 microns minimum.** However for small areas, rough grinding using a hand held mechanical grinding machine, fitted with a cutting disc, is acceptable.

The underside of reinforcing plates, if being used, should also be prepared. Such plates should be of sufficient size to extend at least 1” beyond the damage. Following Preparation, rewash all areas using Universal Cleaners.

APPLICATION TECHNIQUE

a). Where reinforcement is not required

Mix the selected ThistleBond Product and using the flexible applicators provided, apply a thin film to wet out the prepared area, taking care to push the product well into the prepared area. Apply further mixed material until all pitted and eroded areas are completely filled, taking care to avoid air entrapment. For further information on Erosion

and Corrosion Resistant Coatings please see the section ThistleBond Marine Coatings part Cargo Holds.

b). Where reinforcement is required

Apply a thin film of the selected ThistleBond product to wet out both surfaces to be bonded, pushing the material well into the prepared surface. Apply further product to the reinforcement plate or reinforcing tape, forming the material into a slight peak in the centre. Press the reinforcement plate or tape firmly into position ensuring that any excess material is exuded in order to avoid air entrapment. Any product exuded should be used to fair around the reinforcement plate or tape.

TECHNICAL SUMMARY

PRODUCT	CONSISTENCY	EROSION RESISTANCE	WORKING LIFE (20C)	FULL CURE (20C)
Rapid Setting Super Metal System	PASTE	MEDIUM	2-3 MINUTES	30 MINUTES
Super Metal Rebuilding System	PASTE	MEDIUM	25 MINUTES	72 HOURS
Extended Life Super Metal Rebuilding System	PASTE	MEDIUM	60 MINUTES	5 DAYS
Ceramic Carbide Wearing Compound	PASTE	EXCELLENT	25 MINUTES	5 DAYS
Abrasion Resistant Ceramic Carbide Fluid	FLUID	EXCELLENT	25 MINUTES	5 DAYS
Flexiblised Ceramic Carbide Compound	PASTE	EXCELLENT	20 MINUTES	7 DAYS
Flexiblised Ceramic Carbide Fluid	FLUID	EXCELLENT	20 MINUTES	7 DAYS

THISTLEBOND SYSTEM SELECTION LISTING

Main System Selection

For General Bonding and Filling	SUPER METAL REBUILDING SYSTEM
For General Bonding and Filling with a Longer working life	EXTENDED LIFE SUPER METAL REBUILDING SYSTEM
For Filling in cavitations where erosion resistance Is specifically required	CERAMIC CARBIDE WEARING COMP ABRASION RESISTANT CERAMIC
For filling in small cavitations where erosion resistance And smooth finishing is required	FLEXIBLISED CERAMIC CARBIDE FLUID AND COMPOUND

RECOMMENDED EQUIPMENT

Mixing and application tools are included in each pack of ThistleBond Product. Prior to carrying out the repair however, it is important that all necessary tools and equipment are available on site. These could include the following – *Grit Blasting equipment, ThistleBond Universal Cleaners, ThistleBond Release Agent, Protective Clothing, Polyethylene Tenting, Suitable centralising Jig or Template. New Pintle.*