ProTXcoat

Technology at work for you

ProTXcoat 104

Abrasion Resistant Ceramic Repair Compound

104 is a high performance abrasion resistant metal repair compound specifically developed for use where resistance to sliding abrasion is required.

104 is based on a complex of epoxy resins and polyamino-amide curing system reinforced with carbide and ceramic particles to produce a coating with a high level of adhesion, abrasion and erosion resistance combined with optimum physical and mechanical strength.

104 has excellent adhesion to most metallic surfaces in one easy application and offers outstanding protection to chutes, hoppers, pipe elbows, valves, pumps and equipment subject to aggressive attack from dry solids and slurries.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Heavy contamination due to oil or grease must first be removed using MEK (Methyl Ethyl Ketone)

Surfaces should then be abrasive blast cleaned to a minimum Sa2½ - Sa3 BS7079 Part A1 : 1989 or equivalent with a blast profile of 75 – 125 microns corresponding to 'Rough' in ISO 8503/1. All loose abrasive dust and debris must be blown clear or vacuum cleaned away.

Equipment that has been salt impregnated due to service conditions should first be wet blasted then dry abrasive blasted and checked for presence of salts, this process should be repeated until the salts are removed.

Alternatively, surfaces should be warmed with a blow torch or similar to bring salts up to the surface. The surface should once again be blast cleaned. This procedure must be repeated until no further sweating of impregnated salt is evident.

MIXING

Transfer the entire content of the base and activator containers onto a clean mixing board. Alternatively, measure three volumes of base component and one volume of activator onto a clean mixing surface.

The two components should be thoroughly mixed until streak free. The use of a small trowel is advisable for easy mixing.

The mixed material should be used within 45 minutes of mixing at 20°C (68°F). The time will be reduced at higher temperatures and extended at lower temperatures

APPLICATION

Application should not be carried out at temperatures below 5°C nor when relative humidity exceeds 90% or when the surface to be repaired is less than 3°C above the dew point.

The prepared surface must be dry and free from condensation. The mixed material should be applied to the prepared area, using a trowel or float at thicknesses up to 6mm.

Application should be carried out as soon as possible after surface preparation is complete and certainly the same day, other- wise flash blasting will be necessary before application.

The mixed **104** should be applied by spatula or pallet knife to the surface, pressing firmly into the surface to avoid air entrapment.

In areas where a second layer of **104** is required, this application must be carried out within the initial set time for the first layer, otherwise the surface must be lightly abraded or flash blasted.

VolumeCapacity
542cc (33 cu ins) per kilo

Coverage Rate
0.9 sqm (1sqft) per kilo

Detailed working recommendations are available from the Technical Centre on request.

PHYSICAL CONSTANTS

Mixing Ratio	**Base**	**Activator**
	3	1By volume
	4	1By weight
Appearance	Base	Dark Grey Paste
	Activator	Off White Paste

Drying & Cure Times

at 20°C (68°F)	Usable Life	45 minutes
	Initial Set	3 hours
	Machining Time	8 hours
	Full Mechanical	5 days

Volume Solids 100%

V.O.C. Nil

Shelf Life Use within 5 years of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

Temperature Resistance

Dry Heat **120°C**
Intermittent wet **120°C**
Wet immersion **60°C**

Food Contact Meets USDA requirements for incidental food contact. Meets FDA requirements CFR 21.175.300 for food contact.
Canadian Food Inspection Agency - Accepted Product.

PHYSICAL PROPERTIES

Compressive Strength ASTM D695	1055 kg per cm^2 (15000 psi)
Flexural Strength ASTM D790	420 kg per cm^2 (6000 psi)
Tensile Shear Adhesion ASTM D4060	140 kg per cm^2 (2000 psi) (Abrasive Blasted Mild Steel)
Abrasion Resistance ASTM D4060	20 mg loss per 1000 cycles (1 kg load CS 17 wheel)
Heat Distortion ASTM D648	60°C (140°F)
Hardness (Rockwell R) ASTM D785	100
Corrosion Resistance ASTM B117	5000 hours

HEALTH AND SAFETY

As long as normal good practice is observed **104** can be safely used.

Protective gloves should be worn during use.

A fully detailed **Safety Data Sheet** is either included with the material or is available on request.

PACKAGING

Supplied in 5kg and 25kg packs

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.

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