Corromortar MH

Epoxy resin based manhole benching & lining mortar

Reference No.	TDS / CR / CMOMH
Issue Date:	October 2016
Revision No.	4

Product Features

Corromortar MH is a hand applied, 3 component, solvent free, epoxy mortar specifically designed for lining & benching works in manholes. It offers excellent chemical and abrasion resistance, is applied from 5 mm to 30 mm thickness in a single layer, and develops good early strength to minimise rehabilitation times.
Corromortar MH is supplied in pre weighed packs ready for on site mixing and use, giving consistent properties and performance.

Typical Uses

Corromortar MH is typically used for benching on new manholes or repairing of spalled or damaged concrete and relining of existing manholes in both clean and dirty water environments.

Technical Data

Properties	Test Standards	Typical Values
Sag at 10 mm thickness		: none
Working time	ASTM C 308	: 30 min @ 25°C
Full cure @ 25°C		: 3 - 7 days
Initial cure		: 24 hrs
Water absorption	ASTM C 413	: < 0.07 %
Compressive strength @ 7 days	BS 6319 : Part 2	: > 40 N/mm² @ 25°C
Flexural strength @ 7 days	BS 6319 : Part 3	: > 20 N/mm² @ 25°C
Tensile strength	BS 6319 : Part 7	: > 8 N/mm²
Bond strength	BS 6319 : Part 4	: > 30 N/mm²
Density		: 1900 kg/m³
CHEMICAL RESISTANCE		
Hydrochloric acid, 10%		: excellent
Nitric acid, 10%		: very good
Acetic acid, 5%		: moderate
Sulphuric acid, 25%		: good
Phosporic acid, 20%		: excellent
Lactic acid, 10%		: very good
Sodium Hydroxide, 50%		: moderate
Petrol / Diesel		: excellent
Alcohol		: excellent
Kentones		: excellent

Note: All values given are subject to 5 - 10% tolerance.

Directions for Use

Preparation

Long term durability and function can only be achieved with good preparation to give a strong adhesive & mechanical bond to the substrate.

Concrete surfaces to be repaired particularly if new, should be fully cured with a maximum residual relative humidity (RH) of 75%, clean and free from contamination such as dust, oil, grease, organic growth, release agents & curing compounds.

Mark the extremity of the repair area and saw cut to a minimum depth of 10 mm to define the area to be removed.

Chip out the area within the saw cut back to sound concrete, to a minimum depth of 5 mm ensuring no feather edges and a good mechanical key for the subsequent repair.

If steel reinforcement is exposed, continue to break out the concrete to at least 15 mm behind the bars.

Priming

Concrete
Prior to the application of **Corromortar MH**, prime the prepared concrete surfaces using **Corroprime EPSF**.

Thoroughly mix both parts of **Corroprime EPSF** together in full, using a slow speed drill and paddle for at least 3 – 4 minutes until a homogenous consistency is achieved.

Apply **Corroprime EPSF** using a brush or roller to the prepared concrete surface at a rate of 8 - 11 m² per litre per coat. Allow the primer to become tack free before applying **Corromortar MH**, typically 1 - 2 hours, depending on temperature.
A second priming coat may be required if the substrate is particularly porous. Re-prime if the primer coat has not been over coated within 16 hours.

Dust and surface contamination must be removed prior to subsequent application of **Corromortar MH**.

Steel
Prime exposed steel reinforcement with 2 coats of **Corroprime ZR1** (see separate data sheet) to provide an even, continuous, unbroken coating. Allow to dry fully before applying repair materials.

Mixing

It is essential that the mixing instructions are carefully followed to ensure the correct characteristics of the product are achieved. Failure to do so can result in lower performance or even possible failure of the product.

Mechanically mix the entire contents of the resin components together for at least 1 – 2 minutes until a homogenous consistency is achieved. DO NOT UNDER ANY CIRCUMSTANCES PART MIX MATERIALS.

Empty the mixed resin into a suitable empty container with sufficient volume to accommodate the total yield of the material.

Add the powder or aggregate component to the mixed resin component and mix using a slow speed drill and paddle or forced action mixer for an additional 2 – 3 minutes until a uniform colour & consistency is achieved. ALWAYS ADD THE POWDER TO THE RESIN.

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Application

Apply the mixed material onto the prepared surface using a plastic or wood float. Spread out and tamp or compact to provide a dense topping to a minimum of 5 mm and a maximum of 30 mm thickness in a single layer.

Finish with a plastic float, wood float or steel trowel depending on the surface texture required.

Subsequent layers can be applied to the first layer after 6 - 8 hours. The first layer should be scratch keyed to assist with bonding.

Expansion joints must be reflected through the product and preferably sealed with a sealant from the **Corroseal** range.

Curing

Allow the product to cure fully for 4 - 7 days before exposing to full mechanical or chemical conditions.

Hot Weather Conditions

For application above 40°C we recommend adopting the following guidelines:

Store unmixed materials in a cool preferably air conditioned environment.

Avoid exposure of mixed & unmixed materials to direct sunlight.

Keep equipment that will be in contact with the product cool and away from direct sunlight.

Avoid application during the hottest time of day.

Cleaning

Clean tools and equipment immediately after use with **Corroclean**.

Limitations

Substrate temperatures should be above 5°C and rising.

For application in temperatures above 40°C please refer to hot weather condition recommendation.

Avoid application if the work area may be subject to the onset of rain or moving water.

Do not part mix under any circumstances.

All products should be used within the pot life. Materials not used within the specified time should be discarded.

The product should not be thinned with any type of solvent under any circumstances.

If the above general application details do not meet with your requirements, please contact Corrotech for a project specific method statement.

Estimating

Corromortar MH pack size: 16 kg. Coverage rate approximately 0.8 m² per pack @ 10 mm thickness

Corroprime ZR1 pack size: 1 litre. Coverage rate approximately 10 m² per litre per coat
Corroprime EPSF pack size: 5 & 20 litres. Coverage rate approximately 8 - 10 m² per litre per coat

All coverage rates given are theoretical and subject to actual site conditions. We recommend trial areas are done to establish practical consumption particularly for primers.

Health & safety

Always use appropriate PPE including gloves, goggles and a barrier cream to avoid contact with skin and eyes.

Should contact with skin or eyes occur, wash immediately with plenty of clean water and seek medical advice.

If swallowed, seek medical attention immediately. Do not induce vomiting.

Avoid inhalation and ensure adequate ventilation or suitable respiratory equipment if working in confined spaces.

Do not expose products to fire or naked flames under any circumstances.

Always refer to the product Material Safety Data Sheet (MSDS) for full health & safety and handling recommendations.

Storage

Corromortar MH has a maximum shelf life of 12 months from the date of manufacture.

To maximize shelf life always store products in their original, unopened packaging in a dry environment, away from direct sunlight with a minimum temperature of 10°C but not exceeding 35°C.

Damaged packaging, high humidity or extreme temperatures may reduce the shelf life.

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