

Corromortar STD

General purpose epoxy repair mortar

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Product Features

Corromortar STD is a hand applied, 3 component, solvent free, epoxy repair mortar used for fast patch repairs of concrete from 5 mm to 30 mm thickness in a single layer, particularly where high strength, chemical & abrasion resistance is required. It is supplied in pre weighed packs ready for on site mixing and use, giving consistent properties and performance.

Typical Uses

Corromortar STD is typically used to repair spalled or damaged concrete in areas subject to heavy abrasion, impact and chemical exposure such as warehouse floors, production facilities, chemical processing and industrial applications.

Technical Data		
Properties	Test Standards	Typical Values
Solids Content		: 100%
Specific Gravity		: 1.9
Pot life @ 20°C		: 1 hour
Initial hardness		: 24 hours
Full cure		: 7 days
Volume shrinking		: 0.4%
Linear shrinking		: 0.04%
Compressive strength		: 70 N/mm ² minimum
Flextural strength		: 20 N/mm ² minimum
Tensile strength		: 10 N/mm ² minimum
Water absorption		: 0.2% max
Compacted density		: 1900 kg/m ³
CHEMICAL RESISTANCE		
Hydrochloric acid, 10%		: excellent
Nitric acid, 10%		: very good
Acetic acid, 5%		: moderate
Sulphuric acid, 25%		: good
Phosphoric acid, 20%		: excellent
Lactic acid, 10%		: very good
Sodium Hydroxide, 50%		: moderate
Petrol / Diesel		: excellent
Alcohol		: excellent
Ketones		: excellent
Bond strength	BS 6319, Part 4, 1984	: 50.7 N/mm ²

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

Prior to the application of **Corromortar STD**, prime the prepared concrete surfaces using **Corroprime 30S**. For confined areas we recommend the use of solvent free primer **Corroprime EP SF**.

Thoroughly mix both parts of **Corroprime 30S** together in full, using a slow speed drill and paddle for at least 3 – 4 minutes until a homogenous consistency is achieved.

Apply **Corroprime 30S** 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 STD**, 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 STD**.

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 **Corromortar STD** 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 recommendations.

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.

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

Estimating

Corromortar STD 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 30S 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 STD 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.