

Corrocrete RRM

Fibre reinforced, high early strength, rapid setting, non-shrink mortar

Reference No.	TDS / CR / CCRRRM
Issue Date:	January 2018
Revision No.	4

Product Features

Corrocrete RRM is a rapid setting, high strength, fibre reinforced, medium build roadway and footpath repair mortar. **Corrocrete RRM** can be applied in thicknesses from 15 mm to 50 mm without shrinkage. **Corrocrete RRM** reaches in excess of 50 MPa compressive strength in 24 hours. Initial set will occur within 20 mins.

Corrocrete RRM has low segregation of aggregate and fine particles at high water levels. It does not contain chloride accelerators or metallic powders, so will not cause rusting or staining of surfaces and metal elements.

Typical Uses

Corrocrete RRM is ideally used where rapid cure and high compressive strength are required during quick turn arounds, such as manhole covers, spalled concrete on railway lines, industrial floors, pot holes, bed faces for high traffic areas, concrete steps etc.

Technical Data

Properties	Test Standards	Typical Values
Appearance		: grey powder
Particle size		: 0 - 4 mm
Powder		: 1.4 Kg/L
Initial Set (at 20°C)		: 15-20 mins
Final Set (at 20°C)		: 30-40 mins
Compressive strength	BS EN 196 Part 1	
1 hour		: 29.5 N/mm ²
2 hours		: 34.9 N/mm ²
6 hours		: 40.28 N/mm ²
24 hours		: 48.5 N/mm ²

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

Directions for Use

Preparation

Concrete

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

For all surfaces, loose contaminants and unsound concrete must be chipped away so that a reasonably rough, but strong sound surface is provided.

All surfaces must be free from oil, grease and dust.

Holes and depressions must be thoroughly cleaned of any loose or dusty particles. These may be cleaned with compressed air or via vacuum cleaner to remove loose particles.

The boundaries of the surface to be repaired must be clearly defined by chiselling or diamond blade grinding to a depth of 15 mm minimum. Avoid featheredging.

Priming

Concrete

After cleaning, saturate the concrete surface with clean water prior to applying **Corrocrete RRM**.

Ensure that no freestanding water is present on surfaces prior to product application. Remove any free water by use of compressed air or dry towels.

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.

Use as little water as is required in the mix for ease of placement.

Empty contents of pack (or required portion) into an appropriate mechanical mixer protected from the wind.

Mix with approximately 3 litres of water per 25 kg of **Corrocrete RRM**.

Mix with an electric drill and paddle (Festo type mixer) or in a pan or revolving barrel type mixer. Do not mix by hand. Allow approximately 5 minutes mixing to achieve maximum results.

Place 70% of the required amount of water into the mixing vessel and slowly add the powder while mixing. Gradually add the remainder of the water to achieve the desired consistency. Job placement conditions, including temperature and humidity, may lead to some adjustments in the amount of water addition.

Adjustments to the mixing ratio may be required depending upon site conditions. Ideally, mixing water and substrate should be above the lower application temperature limit of 5 - 30°C to avoid problems with the set time of the mix. Small trial batches to ascertain the best working consistency for the operation are recommended.

Application

Corrocrete RRM should be placed within a maximum 20 minutes of mixing. During that time keep material in mixer well agitated. After this time discard any mixed product that shows signs of stiffening.

Ensure that all surfaces are damp prior to application of **Corrocrete RRM**.

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Apply a tight first pass of **Corrocrete RRM** with a stainless steel trowel or gloved hand, pressing firmly to ensure bonding.

Apply additional mortar to obtain the desired overall thickness.

Skim off any excess mortar with a suitable straight edge or steel trowel.

Allow to set for a period of time before finishing with a steel trowel, wooden float or foam float to achieve the desired finish.

Do not rework after initial set. Do not retemper with additional water as this will result in very poor adhesion and strength.

Curing

Curing is essential for all cementitious products to prevent possible shrinkage cracks and ensure the performance characteristics of the product are achieved.

All **Corrocrete RRM** installations should be fully cured. This will result in a denser and stronger material.

Use **Corrocure AR** sprayed onto the **Corrocrete RRM** as soon as practicable after placement.

Do not use curing compounds if subsequent layers of **Corrocrete RRM** are to be applied.

Please consult with Corrotech regarding compatibility of the **Corrocure** range with the finishes to be used.

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.

Use iced water for mixing.

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 & equipment immediately after use with detergent and water.

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 area may be subject to the onset of rain or moving water.

Do not part mix under any circumstances.

Additional coating protection should be applied if the product is exposed to chemicals.

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

Corrocrete RRM pack size: 25 kg. Coverage rate approximately 0.20 m² at 50 mm application thickness

Corrocure AR pack size: 20 & 200 litres. Coverage rate approximately 4 - 5 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.

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Storage

Corrocrete RRM has a maximum shelf life of 6 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 5°C but not exceeding 45°C.

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