



An ISO 9001: 2015 Certified Company.



Duracoat:CRM

CRYSTALLINE WATERPROOFING REPAIR MORTAR

Technical Data Sheet

Description

Duracoat : CRM consists of Portland cement, specially treated quartz sand and a compound of active chemicals.

The active chemicals react with moisture and the by-products of cement hydration to cause a catalytic reaction, which generates an insoluble integral crystalline complex. These crystalline complexes grow in the presence of water and block the capillaries of the concrete and minor shrinkage cracks, thus waterproofing the concrete. Chemical activation begins when the powder is mixed with water and may take several days to completely block the capillaries, depending on ambient temperature and environmental conditions.

Applications precaution

Patching of tie holes and faulty construction joints
Patching and filling of routed out cracks
Repairing of spalled and honeycombed areas
Can be applied to the positive or negative water pressure sides of a structure
Easy to use – needs only to be mixed with water prior to application
Can be applied to moist concrete

Surface preparation:

The surface to be treated should be chipped of all loose and damaged concrete until a sound surface should be free of all latiance, grease and oil. Soak surface with liberal amounts of water 1-2 hours before applications
Cracks should be routed out to a U-shaped configuration
Tie holes should be roughened prior to filling.
Spalled and honeycombed areas must be thoroughly cleaned and chiseled back to

Applications

Spalled and honeycombed areas: Prepare surface and chisel back to sound concrete. Prime area to be repaired with a slurry coat of Duraguard CWS. While still, apply Duracoat : CRM in layers of 1/2" (13 mm) not to exceed 2.5" (6.4 cm). Each layer should be allowed to set long enough that it will leave only a slight indent, approximately 1/16" (1.6 mm) when pressed with a finger. Where possible, the surface of the repair should be packed tightly using a hammer and block of wood.

Tie holes and pointing applications: Prepare surface and chisel back to sound concrete. Prime area to be repaired with a slurry coat of Duraguard CWS and while still "green" (tacky), apply Duracoat : CRM in "dry earth" consistency.

Duracoat : CRM should be tightly rodded into tie holes or packed tightly using a hammer and block of wood.

Mixing

Each 25 Kg bag of Duracoat : CRM is to mixed with 6-7 Ltrs. of water preferably in mortar mixer.

Routed cracks, coves and non-moving joints: Add water to Duracoat : CRM until a medium stiff, trowelable consistency is reached. The texture of the mix

should be pliable enough to be trowelled into the cracks with some pressure, but not so pliable that it would run out or sag out of the crack.

Approximate mixing ratio (by volume) is 4.5 parts powder to 1 part water.

Tie holes and pointing applications: Add only a small amount of water. Mixed consistency should be that of "dry earth," holding a shape when squeezed in your hand but easily crumbled when pressed between fingers. Mix only as much material as can be used within 20 minutes.

Curing

Provide protection against extreme weather conditions, such as heavy rain or freezing conditions, during the setting period. Curing is not normally required except during hot, low humidity weather. In these conditions, a light mist of water approximately 24 hours after the repair is completed will help to ensure a controlled cure. In extreme dry heat, water misting may be required more frequently.



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SPECIAL CONSIDERATIONS

DO NOT apply Duracoat : CRM at temperatures below 4°C, to a frozen substrate or if temperatures will drop below freezing during the curing period (approximately 24 hours).

This product is not recommended for use in expansion joints or other joints designed for movement. Duracoat : CRM can be applied in 1/2" (13 mm) layers not exceeding 2.5" (6.4 cm) to prevent shrinkage cracks in the mortar.

CONSUMPTION & YIELD 25 KG BAG

All values are approximate depending on surface conditions.

U-shaped cracks and reglets

Size	1"x1" (25 mm x 25 mm)
Consumption	1.0 lb/ft ² (4.9 kg/m ²)
~Yield/bag	50 ft (15.2 m)

Coves, triangular shaped

Size	1.5"x1.5" (38 mm x 38 mm)
Consumption	1.0 lb/ft ² (4.9 kg/m ²)
~Yield/bag	50 ft (15.2 m)

Tie holes

Size	1"x1"x1" (25 mm x 25 mm x 25 mm)
Consumption	N/A
~Yield/bag	600 nos

Honeycomb and surface patching

Approximately 0.4 ft³ (0.01 m³) / bag

Technical Services

For more detailed instructions, alternative application methods, or information concerning the compatibility of the Condura treatment with other products or technologies, contact the Condura Technical Department or your local Condura representative.

TECHNICAL DATA

Compressive strength (ASTM C-109):

1 day	1600 psi (11 MPa)
3 days	2400 psi (17 MPa)
7 days	5800 psi (40 MPa)
28 days	6900 psi (48 MPa)

Tensile Strength (ASTM C-190):

1 day	320 psi (2.2 MPa)
3 days	520 psi (3.6 MPa)
7 days	730 psi (5.0 MPa)
28 days	900 psi (6.2 MPa)ood.

Packaging

Duracoat : CRM is factory mixed and packed in 25 kg HDPE lined bags.

Safety

Duracoat : CRM is cementitious alkaline product. Care should be taken to avoid contact with eyes, skin and mouth and food stuff. Any splashes on the human body must be immediately washed plenty of water.

DISCLAIMER The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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