



The Chemical Company

BINDER® 5

Rheomix® 125

Adherence and Impermeability Increasing Acrylic Dispersion Based Admixture For Plasters and Grouts

Description of Product

BINDER® 5 is acrylic dispersion based admixture used in plasters and grouts to increase adherence and impermeability.

Ministry of Public Works Pos. No: 04.6131-i

Fields of Application

- In inner areas for vertical and horizontal applications.
- In mortars, plasters, and grouts.
- As adherence admixture in mortars prepared for repairs.

In Plaster Mortars

Used as adherence and impermeability increasing admixture for inner and outer plasters of concrete silos, water tanks, pools, and water treatment plants.

P.C.C. (Polymer Cement Concrete) Primer in Grouts

It is used to prevent cold joint formation and increase adherence in new concrete or grout applications on old concrete.

Technical Data

Structure of the Material	Modified acrylic dispersion
Color	White
Solid Material Ratio	42%
Density	1.08 kg/liter
Application Ground Temperature	+5°C +35°C
Service Temperature	-20°C +80°C

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

In Grouts

It is used together with **MELMENT® L 10/33** even in 2 cm grouts for high adherence and obtaining non-cracking surfaces; against dusting and cracking on Industrial Soils, and to improve impermeability.

In Coating Mortars

In open spaces, used as admixture to prevent mortar prepared for laying down natural stones, bricks, and floor tiles against Freezing - Thawing cycle.

Shake Plaster Preparation

In smooth surface finishes or gas concrete surfaces, used before plaster and ceramic application to increase the adherence in shake plaster.

Features and Benefits

- Forms strong and durable binding.
- Enables excellent adherence and impermeability.
- Increases strength against water, oil, and salt solvents.
- Improves strength to Freezing - Thawing cycle.



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- Reduces tensions in wide areas by increasing flexural strength.
- Enables hardening without cracks by reduced contraction.
- Gives strength against saponification, does not contain additives that cause corrosion.

Application Procedure

Preparation of Substrate

Cement based surfaces have to strong, bearing, dustless, and clean. Surface must be cleaned off all kinds of oil, grease, rust, and paraffin traces that can weaken adherence. The sides of the surface, which are formed by breaking, must be cut as straight as possible, rust on the reinforcement must be cleaned, and new reinforcement must be added if necessary. If there is water leak on the surface, it has to be drained or sealed by a suitable stopper. Application surface has to be watered 12 hours before, but there must not be any free water left on the surface.

Mixing

BINDER® 5 is diluted by water ratios stated in each application.

In Plaster Mortars

1 m³ washed river sand in suitable gradation is mixed with 350 kg cement. Liquid mixture, prepared by adding 5 kg **BINDER® 5** into 120 kg water, is added onto powder mixture until trowel consistency mortar is obtained. Surface must be wetted, 12 hours before application and **BINDER® 5** admixture mortar has to be applied on wet/dry surface.

P.C.C. (Polymer Cement Concrete) Primer in Grouts

It is used to prevent cold joint formation and increase adherence in new concrete or grout applications on old concrete.

A: 1 kg cement is mixed with 3 kg (0 - 3 mm grainy) washed river sand.

B: 1 kg **BINDER® 5** is mixed with 2 kg water. A and B mixtures are mixed until it becomes creamy. Then, it is applied on surface, which was moisturized 12 hours before, with 2 cm thickness by brush. Fresh concrete has to be placed on P.C.C. before it dries. After applying second layer of P.C.C. fresh concrete is placed on top of it. There is a total of 0.35 kg/m² coverage in first and second layers.

Grout

1 m³ river sand in suitable gradation is mixed with 350 kg cement. 4 kg **BINDER® 5** is added to 110 kg water. This liquid mixture is added to prepared powder mixture until suitable mortar for making primer is obtained. Primer layer, which was described in detail above, has to be applied on surface. Fresh concrete must be placed on primer layer before it dries.

Making of Grout in Industrial Soils

Preparing of Concrete

1 m³ aggregate in suitable gradation is mixed with at least 380 kg cement, 85 kg water, 3 kg **BINDER® 5** and 6 kg **MELMENT® L 10/33**. Primer, which was prepared before, is applied on soil by appropriate tools. Mortar with **BINDER® 5** is applied to soil by spreading.

In Coating Mortars

1 m³ aggregate in suitable gradation is mixed with 250 kg cement, 3 kg **BINDER® 5** and appropriate amount of water. Coating material is applied on soil with prepared mortar with admixture.

In Shake Mortars

1 m³ river sand in suitable gradation is mixed with 350 kg cement and 10 kg **BINDER® 5**. Water is added to this mixture until it becomes creamy.

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Then, it is applied on surface, which was moisturized 12 hours before, with sprinkle tool and left to dry. Surface is moisturized before plaster or ceramic tile application.

Drying Time

After 24 hours you can walk on cement based grouts prepared by **BINDER® 5** admixture. Final strength of **BINDER® 5** added mortars is gained in +20°C after 28 days.

Compatibility

In grouts, 4 kg **BINDER® 5** and 5 kg **MELMENT® L 10/33** can be used for 350 kg cement. With the use of **MELMENT® L 10/33**, the mechanic properties obtained by **BINDER® 5** increase highly. Both of the admixtures must be added separately to the mixture.

Cleaning of Tools

All the equipment must be cleaned by water immediately after the application.

Packaging

10 kg and 30 kg drums

Storage

Must be stored in original packing, closed, and away from direct sunlight. In short-term storing, maximum 3 palettes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages can be used throughout the shelf life if the package cover is well closed.

Health and Safety Precautions

Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application. Avoid contact to skin and eyes during storing and application. If such a contact occurs, it must be washed by soap and plenty of water. Consult a physician urgently if swallowed. Food and drink must be kept outside the application areas. Must be stored away from children. Please look at the Material Safety Data Sheet for detailed information.

Disclaimer

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