



The Chemical Company

RHEOMIX[®] 121

Multi-purpose adhesive, surface sealer, primer and bonding agent, admixture for mortar

Description

RHEOMIX[®] 121 is multi role bonding agent and admixture for cementitious systems.

Primary uses

- As a bonding agent for cement screeds and render, plaster and concrete.
- As an admixture for mortar.

Typical applications

Bonding agent:

RHEOMIX[®] 121 will bond cement screeds, rendering and plaster to most sound surfaces such as concrete, stone, brick, terrazzo and slate floor tiles, and new concrete to old.

Admixture:

As an admixture in cement / sand and granolithic screeds RHEOMIX[®] 121 enables thin, jointless floor toppings and underlays.

Advantages

- Numerous applications from one product.
- Economical and simple to use.
- Exceptional adhesive properties.
- Quick drying.

Packaging

RHEOMIX[®] 121 is supplied in 20 and 200 litre containers.

Standard

BS 5270

*Typical properties

pH:	4 to 6
Minimum film forming temperature:	14 to 15°C

Application procedure

As a bonding agent for cement screeds and renderings, plaster, etc.:

The background must be sound since the adhesion of the mortar to the floor, wall or ceiling will only be as good as the substrate. Remove all flaking and cracking paint, plaster etc. from the substrate. It must be stable, thoroughly clean, and free from oil and grease. Seal the surface using 1 part RHEOMIX[®] 121 to 4 parts of water. Allow this to dry, then apply a bonding coat of 1 part RHEOMIX[®] 121 diluted with 2 parts water (1:1 on low porosity surfaces). Screed, plaster or render on the tacky bonding coat using normal techniques. Cure cementitious screeds and renders properly.

Note:

On totally non-absorbent surfaces such as polished granite, paintwork etc., the sealer coat may be omitted and the bonding coat should be 1 part of water to 2 parts RHEOMIX[®] 121.

Bonding new concrete to old:

Ensure that the substrate is stable, sound thoroughly clean and free from oil, grease and any loosely adhering material. Apply a sealing coat of RHEOMIX[®] 121 diluted with 4 parts of clean water and allow to dry. Apply a bonding coat of RHEOMIX[®] 121 diluted with an equal volume of water and lay the new concrete while this coat is still tacky. To ensure maximum bond strength,



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add 5 litres of RHEOMIX[®] 121 per 100kg bag of cement.

As a surface sealing coat:

To seal highly porous and dusty, friable concrete or granolithic subfloors, apply 2 coats of RHEOMIX[®] 121 diluted at the rate of 1 part RHEOMIX[®] 121 to 4 parts water and a final coat diluted 1 part RHEOMIX[®] 121 to 3 parts water. Allow each coat to dry before proceeding. On less porous floors, the first coat may be omitted.

As a bitumen primer:

To prevent bitumen coatings bleeding through subsequent films, they may be primed with RHEOMIX[®] 121 diluted with equal parts of water which will form an efficient barrier and may then be safely covered with most oil based paints.

As an admixture in cement/sand and granolithic screeds:

The use of RHEOMIX[®] 121 in the mix allows thin, jointless floor screeds (9 - 18mm thick) to be laid. For **domestic** and other areas subject to light traffic, use 1 part cement, 3 parts sharp sand and 20 litres of RHEOMIX[®] 121 per 100kg of cement. For an **industrial** floor finish or where there is heavy traffic, use a granolithic mix 1 part cement 1 part sand and 2 parts 3 to 6mm granite (no dust) plus 20 to 30 litres of RHEOMIX[®] 121 per 100kg of cement.

Follow the instructions given above for sealing and bonding, particularly ensuring that the substrate surface is stable, sound and thoroughly clean. Thoroughly mix the mortar to a semi-dry consistency; do not mix the mortar too wet - the addition of RHEOMIX[®] 121 will reduce the amount of water needed to achieve a given workability.

Lay the screed on to the tacky bonding coat, tamping well to ensure maximum contact with the floor beneath. Trowel to a smooth finish.

Under normal temperature conditions with the maximum addition of RHEOMIX[®] 121, the setting time of sand/cement is 36 to 48 hours and granolithic 24 to 36 hours. Allow 3 days to 7 days before opening to traffic, depending upon the severity of the traffic (longer may be required if temperatures are low and reduced in high temperatures).

All cementitious surfaces must be effectively cured. The use of polythene sheet laid over the surface supported by battens to prevent marking the surface is recommended. Tape down the edges to prevent air movement under the sheeting. Keep in place for a minimum of 3 days.

Watchpoints:

- 1. High strength concrete toppings for floors, including granolithic:**
High strength toppings should always be executed in accordance with established practice, including mechanical preparation of the substrate before application of RHEOMIX[®] 121.
2. RHEOMIX[®] 121 is not suitable where conditions of rising damp or permanent dampness are likely to occur. In these cases use RHEOMIX[®] 141.
3. Do not use when ambient temperature is less than 5°C.
4. Do not lay mix too wet.
5. Do not overtrowel.
6. Always lay both sealing coat and bonding coat as recommended.

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For further advice consult BASF Technical Services Department.

Coverage rate

As a primer/adhesive:

- Neat: 1ltr per 6 - 12 square metres
- Diluted 1:1: 1ltr per 16 - 24 square metres
- Diluted 1:3: 1ltr per 24 - 40 square metres

The above figures will vary according to the degree of porosity and texture of the surface to which RHEOMIX[®] 121 is applied.

As an admixture:

RHEOMIX[®] 121 is added at the rate of 20 to 30 litres per 100 kg of cement used i.e. approx. 100 to 150 litres per cu. metre of mortar.

Equipment care

Clean equipment in water immediately after use.

Specification clause

Where indicated RHEOMIX[®] 121 shall be used as the adhesive, sealer, primer, bonding agent and admixture. RHEOMIX[®] 121, manufactured by BASF, or similar approved, shall comply with the following specification:

- Composition: Opaque, white, non-toxic externally plasticised PVA dispersion of high viscosity
- pH: 4 to 6
- Minimum film forming temperature: 14°C to 15°C

RHEOMIX[®] 121 shall be used strictly as recommended by the manufacturer.

Safety precautions

Avoid contact with eyes and prolonged contact with skin. During application always wear gloves and appropriate clothing to minimise contact. In case of contact with eyes, immediately flush with plenty of water for at least 15 minutes. Should skin contact occur, wash immediately with soap and water. Seek the advice of a physician should symptoms persist.

Storage

Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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