

Unicrete

Polymer modified repair mortar



1-Product description

1.1 USE

- Unicrete is a one-component, polymer modified mortar, specially formulated for long term reparation of cracks and voids on concrete surfaces.
- Unicrete can be used in all sorts of situations since a single mix can be applied in a thickness ranging from 3 mm (1/8 in) to 75 mm (3 in).

1.2 ADVANTAGES

- Easy-to-apply: very smooth texture
- Excellent freeze/thaw and de-icing salt resistance
- High abrasion resistance
- Interior and exterior use

2- Installation

2.1 SURFACE PREPARATION

- The surface to be repaired must be sound, clean and free from bond inhibiting materials such as dust, oil or paint.
- Make sure the temperature is between 5°C (40°F) and 35°C (95°F), during the application and for the following 48 hours.
- Do not apply under blazing sun.
- Before the application, humidify the surface with clean water without leaving any accumulation.

2.2 MIXING

- Pour 700 ml of clean water per 5 kg of Unicrete into a clean container.

- Gradually add the powder while mixing.

- Mix until the mixture is homogeneous (minimum 3 minutes). Scrape the sides of the container during mixing.

- It is possible to use a drill equipped with a mixing attachment such as a paint mixer.

- Do not use a concrete mixer since it does not mix vigorously enough.

- Only mix the amount of material that can be used within 30 to 40 minutes.

- Note: Do not add more water in order to avoid shrinkage during cure.

2.3 APPLICATION

- Apply the material with a steel trowel, up to a thickness of 75 mm (3 in).

2.4 FINISHING

- Finish the surface with a steel trowel.

2.5 PROTECTION AND CURING

- Cover the new application for the first 24 hours with a plastic sheeting (make sure the plastic does not touch the surface) to prevent rapid water evaporation and to protect from sun, wind or rain.

- Allow a cure of 24 hours before any foot traffic is permitted (wait 48 hours in cool weather < 15°C, 59 °F).

2.6 CLEANING

- Clean tools and containers with water while mixture is not yet hardened. Once it is hard, only a mechanical cleaning will be efficient.

3. Packaging

This product is available in:

- 5 kg (11 lb) container
- 15 kg (33 lb) container

4. Storage

- Store in a cool, dry place.
- Shelf life is one year in unopened containers.

- Discard product that has been damaged by water or humidity or that contains hard lumps.

5. First aid

This product contains portland cement and may cause eye, skin and respiratory system irritation. Wear rubber gloves, safety glasses and approved dust mask. If swallowed, call a Poison Control centre or doctor immediately. Do not induce vomiting. In case of contact with eyes, rinse well with water for 15 minutes. In case of skin contact, rinse well with water. Keep out of reach of children. Consult the safety data sheet for more information.

6. Technical services

Contact Daubois for more information about application methods or conditions or to obtain the latest version of our technical documents.

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Technical data sheet

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Technical data table

Characteristic		Results
Initial set time (hours) ASTM C-191		3
Final set time (hours) ASTM C-191		4 1/2
Compressive strength ASTM C-109	1 day 3 days 7 days 28 days	10,0 MPa (1450 psi) 20,0 MPa (2900 psi) 28,0 MPa (4060 psi) 34,0 MPa (4930 psi)
Flexural strength ASTM C-348	1 day 7 days 28 days	3,0 MPa (435 psi) 5,0 MPa (725 psi) 5,0 MPa (725 psi)
Adhesion on concrete CSA 23.2-6B	7 days 28 days	1,5 MPa (218 psi) 1,8 MPa (261 psi)
Specific weight kg/L (lb/ft ³) ASTM C-185		2,15 (134)
Covering for a kilogram of material		0,05 m ² at a thickness of 12 mm (0,5 ft ² at a thickness of 1/2 in)

Note: These results were obtained in a laboratory at 23 °C (72°F)

7. Warranty

Daubois guarantees that this product will perform as specified in this technical data sheet and suits the application for which it was intended. Nonetheless, Daubois does not offer any explicit or implicit warranty. Under this warranty, Daubois' responsibility is limited to either replace or refund the cost of the product proved defective.