

Ceramic CB-301 Flex

Construction Chemicals > Waterproofing Products > Bitumen Rubber-Based



Ceramic CB 301-Flex is a cement-based, single-component, polymer-modified, flexible powder adhesive with high adhesive strength, used for the application of ceramic and tile coverings. It is compatible with C2TE and C2S1 classes.

■ Fields of Application

- For all indoor and outdoor applications of ceramic, tile, and marble covering materials
- For bonding on horizontal and vertical surfaces in pools
- On surfaces exposed to heavy traffic (such as industrial areas)
- As adhesive on underfloor heating systems.

■ Advantages

- Can be used safely in ceramic applications
- Resistant to water and frost
- Provides strong adhesion with polymer modification
- Offers safer usage in pools and wet areas
- Flexible
- Complies with C2TE and C2S1 class

1 Surface Preparation:

The surface to be applied must be clean and free from loose parts. The application surface must have sufficient strength. If there are wide cracks and gaps on the cleaned surface, they should be filled with CB 435 series repair mortars.

2 Mortar Preparation

Add 25 kg of Ceramic CB 301-Flex Tile Adhesive to approximately 5.5 – 6.5 liters of clean water and mix with a low-speed mixer or trowel until lump-free. The prepared mortar should be rested for 5 minutes and then mixed again at low speed before use. The mixture should be consumed within 1 hour.

3 Application

The prepared Ceramic CB 301-Flex mortar should be applied to the surface using a notched trowel suitable for the tile size. A rubber mallet can be used to ensure that the bonded tile is securely seated on the surface and to remove any air bubbles in the mortar. For tiles larger than 20 cm x 20 cm used outdoors, a double-sided application method should be selected. After application, the surface should be protected from air currents and water. Final strength is reached after 28 days. The joints left optionally while laying ceramics and tiles should be filled with CB 817 series joint filler 24 hours after application.

4 Packaging

25 kg PE-reinforced kraft bags.

5 Consumption

The mortar should be applied to the surface, and the thickness adjusted with a notched steel trowel. Depending on the size of the trowel teeth, the size of the tile to be laid, and the smoothness of the application surface, if the trowel size is 6x6x6 (mm), 3–4 kg/m² can be consumed for single-sided bonding, and 5–6 kg/m² for double-sided bonding. If the trowel size is 8x8x8 (mm), 4–5 kg/m² can be consumed for single-sided bonding, and 6–7 kg/m² for double-sided bonding.

6 Precautions

- Should be applied at temperatures between +5°C and +35°C
- If the surface temperature is over +25°C, or surfaces with coarse plaster should be moistened
- If the surface is newly plastered, it should be waited for at least 3 weeks
- If applied on existing tiles and drywall, Merks Prima conc Ab 640 primer must be applied first
- On gypsum surfaces, the surface must be roughened, and then Merks Prima conc Ab 640 primer must be applied
- Should not be applied on frozen surfaces
- Avoid applying in windy areas
- No dust or water should be added to expired mortar
- Should not be applied on frozen, thawing, or surfaces at risk of freezing within 24 hours
- For surfaces exposed to heavy traffic (e.g., industrial areas), Ceramic CB 301-Flex is recommended
- Cannot be applied on old painted surfaces
- Unused powder material should be tightly sealed in its packaging

7 Shelf Life

At least 12 months in moisture-free and dry environments, protected from frost.



TECHNICAL DATAS

Material Composition	Mineral fillers, polymer-reinforced additives, and cement
Appearance	Gray / White powder
Application Surface Temperature	(+5°C) - (+25°C)
Powder Bulk Density	~ 1,60 kg/l
Wet Bulk Density	~ 1,90 kg/l
Resting Time	5 - 10 minutes
Application Temperature	(+5°C) - (+35°C)
Pot Life	2 hours
Service Temperature	-20°C to +80°C
Slippage	< 0.5mm
Wetability	Min. %90
Tensile Adhesion Strength After Open Waiting	After at least 30 min $\geq 0.5 \text{ N/mm}^2$
Initial Tensile Adhesion Strength	$\geq 1.0 \text{ N/mm}^2$
Tensile Adhesion Strength After Water Immersion	$\geq 1.0 \text{ N/mm}^2$
Tensile Adhesion Strength After Heat Aging	$\geq 1.0 \text{ N/mm}^2$
Tensile Adhesion Strength After Freeze-Thaw Cycles	$\geq 1.0 \text{ N/mm}^2$
Time to Traffic	3 days
Shelf Life	12 months in unopened packaging in a dry environment
Packaging	25 kg PE-reinforced kraft bag