

CIKOpave BM40



Thick-bedding cement based adhesive and mortar

Description

CIKOpave BM 40 is a one component cement based mortar adhesive specialized for thick bed horizontal application ranging from 5 up to 40 mm of all types of heavy or large precast pavers, interlocks, kerbstones and most types of absorbent tiles over all common concrete/screed substrates.

CIKOpave BM 40 is a ready mix product that requires the addition of water and proper mixing at site for usage.

CIKOpave BM 40 is a factory blended powder consisting of cement, adhesion enhancing polymers, graded aggregates, water retention agent, rheology modifier etc.

Properties & Advantages

- Single component system, easy to mix and use.
- Fixing pavers, kerbstones and interlocks, ceramic tiles over concrete & cement based screed mortar substrates.
- Provides good workability, open time and high compressive strength.
- Good bond strength.
- Good water resistance.
- Excellent adhesion in the wet stage during application.
- Non-shrink and crack free mortar.

Application area

CIKOpave BM 40 is a thick bed mortar adhesive that can be used for interior and exterior applications for:

- Installation of precast pavers, kerbstone, interlocks and ceramics indoor and outdoor areas subjected to Light, medium and heavy traffic service

Physical Properties

Form	Powder
Colour	Grey
W/P	0.12-0.14
Working time	60 to 80 mins (25-30°C)
	30 to 45 mins (35-40°C)
Light traffic (25-30°C)	10-12 hours
Heavy Traffic (25-30°C)	60-72 hours
Tensile Adhesion Strength EN 1348 @ 4 conditions	≥ 0.3 N/mm ²
Pull off Bond Strength to concrete/screed BS EN 1015-12	≥ 0.5 N/mm ²
Compressive Strength ASTM C109	≥25 N/mm ² (7 days)
	≥35 N/mm ² (28 days)
Flexural Strength ASTM C348	≥3.5 N/mm ² (7 days)
	≥5 N/mm ² (28 days)
Volume Change	Less than 0.1%
Fresh Density	2.25 ± 0.05 kg/L
Maximum size of aggregate	4 mm

Coverage

Each bag of 25 kg CIKOpave BM 40 yields to 12.5 to 13 L and covers for bed applications as follows.

40mm thick solid bed	0.31 to 0.32 m ²
10mm thick solid bed	1.25 to 1.3 m ²
5mm thick solid bed	2.5 to 2.6 m ²

Coverage rate may vary depending on substrate conditions and finish. Bedding thickness can be maintained from 5 mm to 40 mm.

Application instructions

Surface preparation

The concrete/screed surface should be free from dust and loose particles. In case of traces of oil and grease, the surface shall be treated by acid etching or sand blasting. Curing compounds and sealers, if present, must be removed by mechanical means. Ensure a sound and clean substrate, and then saturate the surface with clean water just before application of CIKOpave BM 40. Assure no standing water is present.

Clean the paver and interlock from dust and saturate its bottom surface with water prior to the installation.

Mixing

CIKOpave BM 40 should be mixed with 3 to 3.5 L of water for each bag of 25kg. Use a heavy duty high speed drill-paddle assembly for mixing. Add the required amount of clean water into a wide container then dispense the powder gradually whilst mixing, continue mixing for at least 3 to 4 minutes to achieve a uniform consistency. In hot weather application, use chilled water to extend the open time and workability of the mixed material.

The amount of water should be minimal (3L per 25 kg bag) to attain the optimum properties of mortar adhesive especially if the bedding thickness is between 20 and 40 mm and the unit to be fixed is of heavy weight.

Application method

Spread the mixed material over the saturated surface dry area to a uniform thickness using a normal steel trowel. Install the damped cleaned paver, interlock or kerbstone over the freshly applied material and tap it using a rubber hammer or any other suitable tool to adjust the level and ensure that the paver or interlock is firmly bonded to the substrate. Adjust the fixed paver/interlock within 10 minutes of initial positioning in longitudinal and transversal motion. Do not overlay an area in which the installation time will exceed the open time of the mortar adhesive.

Precautions and limitations:

- Do not use CIKOpave BM40 for non-absorbent tiles and substrates.
- Do not add water to the mix after initial mixing.
- Not suitable for vertical application except for supported skirting.
- Ensure that the installation takes place before the end of the open time to prevent skin formation.

Packaging

CIKOpave BM 40 is available in 25 kg moisture resistant bags.

Shelf life

CIKOpave BM 40 has a shelf life of 12 months in unopened bags and if stored in accordance with CIKO instructions.

Storage

CIKOpave BM 40 should be stored under enclosed shaded area away at temperatures between 5 °C and 40°C.

Health & safety

Use standard dust mask to avoid inhalation of dust. Powder when wet or moist can cause burns to skin and eyes which should be protected during use. If comes in contact with skin/eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

Technical Support

For any technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off site services to end users, specifier and contractors.

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A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries