

# CIKOtile SPM-40



**Improved Performance, cement based dried latex modified thick bed adhesive for marble and granite**

## Description

CIKOtile SPM-40 is high quality pre-mixed cement based dried latex modified marble and granite adhesive suitable for horizontal thick bedding applications ranging from 5mm up to 40 mm on concrete and mortar surfaces. It requires addition of water and proper mixing at site for usage. It exhibits excellent bonding properties to concrete and cement screed substrates.

CIKOtile SP-M is a factory blended powder consisting of cement, adhesion enhancing polymers, graded aggregate, water retention agent, rheology modifier, etc.

## Properties

- Single component system, easy to mix and apply
- Suitable for thick bedding installation of large and heavy ceramic, mosaic tiles, marbles, granites and natural stone over concrete & cement based screed, and mortar substrate
- High resistance to moisture, water, heat and freeze thaw cycles.
- Improved workability and easy spreading
- Excellent tensile and shear bond strength.
- High resistance to fungal growth

## Application Area & Uses

CIKOtile SPM-40 is a high quality and improved performance thick bed adhesive used for fixing ceramic, mosaic, marble, precast concrete pavers, glass and stone tiles to cement based substrates both outdoor and indoor conditions resistant to high temperatures, wet conditions, and fully submerged cases.

## Applicable standards

CIKOtile SPM-40 complies with minimum performance requirements of:

- ANSI A118.4
- BS EN 12004 & ISO 13007-1 code C2
- Qatar Construction Specifications QCS.

## Physical Properties

Form	Powder
Colour	Grey or White
W/P	0.18-0.20
Fresh Density	1.9±0.05 kg/L
Working Time	60-80 mins (25°C) 40-55 mins (35°C)
Compressive Strength ASTM C109	≥17.5 N/mm <sup>2</sup> (28 days)
Flexural Strength ASTM C348	≥4 N/mm <sup>2</sup> (7 days) ≥6 N/mm <sup>2</sup> (28 days)
Tensile Bond Strength under 4 condition as per BS EN1348	≥1 N/mm <sup>2</sup>
Open Time Tensile Bond Strength BS EN1346	≥0.8 Mpa (10 mins) ≥0.6 Mpa (20 mins)

\*All tests are conducted at W/P=0.18

## Coverage

Each bag of 25 kg CIKOtile SPM-40 mixed with 4.5-5 L of water yields 15.25-16.25 L of fresh adhesive and provides coverage as below:

10*10 mm Notched	3.05 to 3.25 m <sup>2</sup>
20*20 mm Notched	1.525 to 1.625 m <sup>2</sup>
40 mm solid bed	0.38 to 0.405 m <sup>2</sup>

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

Note: the coverage of 10\*10 mm notched results in 5 mm thick solid bed.

## Application instructions

### Substrate and tile preparation

The concrete/mortar 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 such as diamond disk grinding. Upon ensuring a sound and clean substrate, wet the substrate surface and bottom side of tile with clean water just before application of CIKOtile SPM-40.

### Mixing

Pour 4.5 up to 5 litres of clean water in a container of minimum capacity 25 L, dispense the powder gradually while mixing using heavy duty adjustable speed drill-paddle mixer assembly. Mix at least 3 minutes at high speed so that the mixed material attains a thick, trowelable and lump free consistency.

Note: In hot weather application, use chilled water to extend the open time and workability of the mixed material

### Application method

Spread the mixed material over the saturated surface dry area to a uniform thickness. Comb the applied surface using a semi-notched trowel or normal steel trowel as required. Tap the tile using rubber hammer and press it firmly to the adhesive bed in longitudinal and transversal motion and ensure that the tile is firmly bonded to the substrate. Tile can adjusted for 5 to 10 minutes after initial positioning.

At high ambient temperatures, it is advisable not to increase the surface spreading area so that installation of the tiles takes place within the open time of the adhesive (10 minutes) to prevent skin formation and maintain proper bonding performance.

### Packaging

CIKOtile SPM-40 is available in 25kg moisture resistant bags.

### Storage

CIKOtile SPM-40 should be stored under enclosed shaded areas at temperatures between 5°C and 45°C.

### Shelf life

CIKOtile SPM-40 has a shelf life of 12 months when stored in its unopened original packaging as per CIKO's recommendations.

### Precautions

- Do not use over gypsum boards or gypsum surface.
- Not suitable for vertical applications except or supported tiles skirting.

### 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.*

### More from CIKO Middle East

*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

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Note: The information presented herein based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control



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