

VICACEM-CALCERA®

Edition 08025

Micro-cement topping for concrete effect and decorative finishing.

Description

VICACEM is a highly versatile and smooth cement-based coating designed to enhance the surfaces it is applied to, with a finally measured thickness of approximately 2-3 mm. Renowned for its superior adhesive properties, **VICACEM** seamlessly bonds to a wide range of surfaces, making it an ideal choice for both residential and commercial projects. This coating is perfect for applications across various spaces, including walls, floors, stairs, exteriors, facades, swimming pools, kitchens, bathrooms, and furniture, offering a modern and sleek finish without the hassle of removing the existing material underneath. One of the standout features of **VICACEM** is its remarkable surface hardness, which can be likened to the durability of natural wood flooring, with a strength measurement of 40N/mm². This level of hardness ensures that surfaces treated with **VICACEM** can withstand everyday wear and tear, making it a practical choice for high-traffic areas.

VICACEM is classified as **CT-C40-F8** According to **BS EN 13813:2002**

Advantages

- Create seamless, continuous, and uniform surfaces with a minimum thickness of approximately 2mm.
- Excellent adhesion to various types of substrates.
- Available in a wide range of colors and textures, making it versatile for various design preferences.
- Ideal for renovation projects, doesn't need to remove the existing material, saving time, effort & cost.
- The installation process is entirely manual, which lends a unique character to each application.
- With the use of the suitable primer, it can be applied to various surfaces offering great flexibility in its use.
- The installation is clean and quiet, as it generates no dust or noise.
- Maintaining the surface is also simple, ensuring that the material remains attractive and functional over time.
- This combination of practical benefits and aesthetic appeal makes it an excellent choice for modern renovations

Uses

VICACEM-CALCERA is a fine, single-component, cement-based topping specifically designed for a smooth, tight-troweled finish, making it an ideal solution for decorative seamless finish & concrete effect floors. Additionally, it can be applied to walls to achieve a Venetian plaster-like effect. **VICACEM-CALCERA** is produced with either gray or white cement, both of which can be customized with various color options. **VICACEM-CALCERA** can be used in but not limited to the following:

- Residential areas
- Outdoor finishings
- Show rooms
- Restaurants and cafes
- Bathrooms
- Renovation projects
- DIY art projects
- Stencil wall art
- Furniture renovation

When used in combination of an appropriate primer and base coat, **VICACEM-CALCERA** can be used on various substrates such as plasters, concrete, ceramic tiles, marble, terrazzo, plasterboards...etc. (Please refer to our technical office)

Technical characteristics at 24° C

Color	White, Beige & Grey (other colors are available upon request)
Toxicity	Non-toxic
Processing Conditions	10 -35°C & 35-75% RH, recommended 40-65%
Water/Powder ratio	0.30 - 0.33 (whether vertically or horizontally applied)
Thickness of application	Feather edge to 1mm (normally 0.5mm / coat)
Drying time	2 hours
Workable time	15 - 20 min
Over coating	24 hrs.
Fresh density	≈ 1.7 Kg/L
Adhesion to concrete substrate	> 1.5 N/mm ²
Flexural strength at 28d according to BS EN 196-1 (MPa)	> 8 MPa
Compressive strength according to BS EN 196-1 (MPa) (4x4x16 prisms)	

Water/Powder ratio	Age		
	3 days	7 days	28 days
0.3	17	30	>40

Package & Coverage

VICACEM-CALCERA is supplied in 25 Kg bags, 10kg buckets, 5kg buckets. (Other packing options are available)

After mixing with water, the 10 Kg yields about 8 liters of mixture covering about 8 m² of 1.0mm thickness (each 1mm consumes about 1.7-1.8kg). Allowance should be made for any possible wastage when estimating.

Application Instructions

> Surface preparation

- All substrates must be solid, thoroughly clean and free from laitance, dust, loose particles, oil, wax, grease, asphalt, latex and gypsum compounds, curing compounds, sealers and any contaminant that might act as a bond breaker.
- Acid etching, adhesive removers, solvents and sweeping compounds are not acceptable means for cleaning the substrate.
- For best results, it is recommended that the substrate must be sanded using a 40-grit sand paper.

- The floor must be moisture-free, well-leveled, and smooth, as the condition of the substrate will greatly influence the quality of the **VICACEM** finish, particularly in terms of surface flatness. If the flooring is not well-leveled, it is recommended to use a shrinkage free leveling compound such as **VICAFLOOR-SL300**.
- Substrate and ambient temperatures must be 10 - 35°C during and for 48 hours after the installation of **VICACEM**.
- **Water leaks, Joints and Moving Cracks**
 - Any water leaks must be stopped and repaired following a proper repair procedure, using **VICASEAL MORTAR** or **VICAROC & VICASEAL INJECTION** if required.
 - Under no circumstances should **VICACEM-CALCERA** be installed over any joints or any moving cracks. All existing expansion joints, isolation joints, construction joints and control joints (saw cuts), as well as all moving cracks, must be honored up through the topping by installing a flexible sealing compound specifically designed for use in moving joints.
 - Failure to do so may result in cracking and/or disbonding of the topping. Even the slightest amount of movement in a control joint will cause the **VICACEM-CALCERA** to show a hairline crack in a pattern reflective of the joint.
 - **Hemts construction chemicals ltd.** cannot be responsible for problems that arise from joints, existing cracks or new cracks that may develop after the system has been installed.
- **Dormant Cracks**
 - Before proceeding with the installation, all dormant cracks greater than 0.7 mm wide must be prefilled with **VICAREP-F** and suitable bonding agent. The filling of dormant cracks as described above is recommended to help prevent the cracks from showing through the topping. However, should movement occur, cracks will reappear.
- **Priming**
 - In most cases **VICACEM-CALCERA** doesn't need any priming before application especially if applied over **VICACEM-MICROBASE**, however in some specific cases It is recommended that all substrates to be primed using a suitable primer such as **PRIMER-A42** for improved adhesion.
 - For absorbent substrates, **PRIMER-A42** must be diluted with a ratio of water: primer, 1:1 up to 2:1.
 - In extreme cases of absorbent subfloors, a second coat of primer is to be applied after the drying of the first coat.
 - For non-absorbent substrates, **PRIMER-A42** is recommended to be used as it is without any dilution.
 - In some cases, **PRIMER-EP200** would be a recommended solution against capillary rising dampness.
 - In all cases, our technical office team is very welcoming to give any technical assistance.
- **Mixing**
 - Mix each 10kg bucket with 3.0 to 3.3 liters of clean water.
 - Pour the water in the mixing drum first, and then add the powder gradually while mixing with a helical Paddle and a heavy-duty drill (min. 650 rpm). Mix thoroughly for approximately 2 to 3 minutes to obtain a lump-free mix.
 - If colorants to be used, mix the colors with the water first to a homogeneous mix then add the powder.
 - Mechanical mixing using a moderate speed, high torque drill is essential for a rapid and homogeneous mix.
- **Application**
 - Depending on the surface type & final finish, apply one or two coats of **VICACEM-CALCERA** with a steel trowel.
 - For floors, it is preferred to apply a minimum of two coats over **VICACEM-MICROBASE** reinforced with fiber mesh.
 - Before adding a subsequent coat, ensure the previous one is smoothed by sanding with a random orbital sander and 40-grit sandpaper to remove any surface imperfections.
 - Make sure to work in sections that can be finished within 15-20 min.
 - Avoid applying layers of **VICACEM-MICROBASE** or **VICACEM-CALCERA** thicker than 1 mm. The recommended total thickness for the combined layers is 3 mm.
 - **VICACEM-CALCERA** can be fine sanded to a very smooth finish.
 - **VICACEM-CALCERA** is self-curing and doesn't require any additional curing; however, it must be protected for 24 hours against direct sun light, wind and hot temperature.
 - **VICACEM-CALCERA** must be sealed using an appropriate sealer.
 - **The quality of surface leveling and preparation directly impacts material consumption and reduces installation time. Selecting the appropriate method for each application is highly recommended.**
- **Precautions**
 - Protect the **VICACEM-CALCERA** from direct sun or other sources of heat before use, this can lead to a very fast setting and loss of workability. During the setting of the mixture, exposure to drafts and intense sunlight should be avoided.
 - The temperature of **VICACEM-CALCERA** & the elements in contact with it, must be in the range of 10-35°C.
 - Never exceed the stated water dose and temperature to avoid bleeding, segregation and further cracking. Never add water to retrieve its initial workability, only mechanical remixing will retrieve the original consistency.
 - For application thickness other than the stated, please refer to our technical office.
 - **Avoid contact with gypsum or any other sulfates on substrate, mixing water or curing water in plastic state.**

Storage & shelf life

VICACEM-CALCERA should be stored in normal temperature over well sealed pallets in a closed shaded dry area in undamaged original packing or sealed plastic bags. It is recommended to be re-tested after 6 months from production.

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