

# VICAFLOOR-SL310®

Edition 05023

## Fast setting, Cementitious Self-Levelling Overlayment & Polished Terrazzo Binder

### Description

**Vicafloor-SL310** is a one component Cementitious Self-Levelling Overlayment based on **VICAT** Special Binders, siliceous graded aggregates, mineral additives and admixtures. When mixed with water, it produces a Highly Flowable, Fast drying cementitious overlayment for the filling, levelling and smoothing of concrete floors and can be fine polished after drying to a shiny finish. Moreover, **Vicafloor-SL310** can be used as an extra hard underlayment for vinyl, carpet, laminated floors or resinous coatings. **Vicafloor-SL310** Can also be extended with suitable aggregates to make a heavy-duty polishable terrazzo flooring. **Vicafloor-SL310** is classified as **CT-C50-F6** According to **BS EN 13813:2002**

### Advantages

- Fast Setting and drying, Can be over coated after only 24hrs & 3-4 hours walk on time (+24°C).
- Very low shrinkage minimizes cracking risks.
- Highly Flowable with maintained flowability during its pot life.
- High early strength with long term strength gain.
- Application thickness from 3mm to 20mm neat and up to 50mm when extended with aggregates.
- Very Easy to use and doesn't require any troweling .
- Very good air release & Smooth surface profile.

### Uses

**Vicafloor-SL310** is specially developed for finishing, smoothing and leveling of concrete slabs and floors of:

- Ware houses, Workshops & production facilities
- Car service stations & Fuel Stations
- Places subjected to high vehicle traffic
- Sidewalks and pavements
- Garages & Car parks
- Decorative Concrete effect floorings

**Vicafloor-SL310** can also be used as an extra hard underlayment before installing tiles or other floor coverings that are not limited to the following:

- Ceramic/natural stone.
- Terrazzo coverings.
- Heated screeds.
- Carpet / moquette
- Epoxy coatings.
- Vinyl & laminated floorings

**Vicafloor-SL310** can also be used under wood flooring (parquet) if used in combination with elastic adhesives

**Vicafloor-SL310** can be extended with aggregates for polished terrazzo applications

(For terrazzo application please refer to our technical office)

### Technical characteristics at 24° C

|                                                                            |                                                         |
|----------------------------------------------------------------------------|---------------------------------------------------------|
| <b>Color</b>                                                               | Grey (other colors are available upon request)          |
| <b>Toxicity</b>                                                            | Non-toxic                                               |
| <b>Processing Conditions</b>                                               | 10 -35°C & 35-75% RH, recommended 40-65%                |
| <b>Water/Powder ratio</b>                                                  | 0.20 - 0.22                                             |
| <b>Setting time</b>                                                        | Initial :30 min - Final:50 min                          |
| <b>Workable time</b>                                                       | 15 - 20 min                                             |
| <b>Over coating</b>                                                        | 24 hrs                                                  |
| <b>Fresh density</b>                                                       | ≈ 2.1 Kg/L                                              |
| <b>Adhesion to concrete substrate</b>                                      | > 1.5 N/mm <sup>2</sup> (Epoxy primer + sand broadcast) |
| <b>Flow according to BS EN 1015-3 (Without Jolting )</b>                   | ≥ 36 Cm                                                 |
| <b>Flow after mixing according to BS EN 13395-2:2002 (cm)</b>              | ≥ 75 Cm in 30 Seconds (20% water)                       |
| <b>Linear Shrinkage at 56d according to BS EN 12617-4 (%)</b>              | ≤ 0.04% (Unrestrained)                                  |
| <b>Linear Expansion at 56d according to BS EN 12617-4 (%)</b>              | ≤ 0.01% (Unrestrained)                                  |
| <b>Flexural strength at 28d according to BS EN 196-1 (MPa)</b>             | > 6 MPa                                                 |
| <b>Compressive strength according to BS EN 196-1 (MPa)</b> (4x4x16 prisms) |                                                         |

| Water/Powder ratio | Age     |          |        |         |         |
|--------------------|---------|----------|--------|---------|---------|
|                    | 4 hours | 24 hours | 7 days | 28 days | 56 days |
| 0.19               | 10      | 30       | 35     | 40      | 50      |

### Package & Coverage

**Vicafloor-SL310** is supplied in 25 Kg bags. After mixing with water, the 25 Kg bag yields about 15.00 liters of self-leveling mortar covering 4.6 m<sup>2</sup> of 3.0mm thickness. Allowance should be made for any possible wastage when estimating.

### Application Instructions

#### > Surface preparation

- A good floor topping is only as good as the 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. Sanding equipment is not an effective method to remove curing and sealing compounds from concrete.

- The substrate must be rough, porous and load bearing. If necessary, mechanically clean down to a sound, solid substrate by shot blasting or similar. Overwatered, frozen or otherwise weak concrete surfaces must also be cleaned down to sound, solid concrete by mechanical methods. Concrete must have a minimum ICRI Concrete Surface Profile of 3 (CSP #3).
- Approved, non-porous substrates must be mechanically abraded to create a profiled surface for bonding.
- Any additional preparation required to achieve these profiles must likewise be mechanical.
- Substrate and ambient temperatures must be 10 - 35°C during and for 48 hours after the installation of **Vicafloor-SL310**.
- **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 **Vicafloor-SL310** 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 **Vicafloor-SL310** 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 a fully rigid, high-modulus, 100% solids material, such as **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**
  - Prime with a suitable Substrate Preparation Epoxy Primer. Follow the recommendations for substrate preparation above, and apply the Epoxy primer with sand broadcast, carefully following the instructions in the Epoxy primer technical data sheet. Contact our technical office for information about suitable sand.
- **Mixing**
  - **Vicafloor-SL310** can be mixed two bags at a time. Mix each 25kg bag with 5.0 to 5.5 litres of clean water.
  - Pour the water in the mixing drum first, and then add each bag of **Vicafloor-SL310** 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.
  - Do not overwater! Yellowish foam while mixing or settling of the sand aggregate while placing indicates overwatering.
  - A maximum 0.25 liter of additional water can be added under stirring until the desired consistency is achieved.
  - Mechanical mixing using a moderate speed, high torque drill is essential for a rapid and homogeneous mix.
- **Application**
  - Pour **Vicafloor-SL310** over the primed substrate & spread it using a suitable gauge rake to the desired thickness immediately after pouring.
  - Good raking is sufficient to push any entrapped air to the surface; however a spiked roller can be used to speed up the air releasing procedure immediately after raking.
  - The whole process should be fast to avoid any roller markings on the surface.
  - Unsuitable spiked roller, too much rolling & late rolling are the main reason for dotted matrix surface marks.
  - Make sure to work in sections that can be finished within 15-20 min.
  - **Vicafloor-SL310** 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.
- **Precautions**
  - Protect the **Vicafloor-SL310** bags from direct sun rays or any other source of heat before use, this can lead to a very fast setting and loss of flowability.
  - During the setting of the mixture, exposure to drafts and intense sunlight should be avoided. This can lead to a too fast removal of moisture, whereby the leveling compound is more susceptible to cracking, shrinkage and the surface edges can be pulverized.
  - Avoid working on hot substrates and avoid mixing with hot water.
  - The temperature of **Vicafloor-SL310** & the elements coming into contact with it should be in the range of 10°C to 35°C.
  - Never exceed the stated water dose and temperature to avoid bleeding, segregation and further cracking. Never remix with water to retrieve its initial workability.
  - When applying multiple layers of leveling compound it is necessary to use primer in between layer.
  - 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**

**Vicafloor-SL310** 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 the production date.

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