

## PUMPABLE FLOORING SYSTEM FOR DOMESTIC, COMMERCIAL AND INDUSTRIAL USE

### PRODUCT DESCRIPTION

CEMSTYLE 450 is a pumpable self smoothing screed formulated from High Alumina Cement. It is a pre-blended dry powder, designed for decorative finishing.

### APPLICATIONS

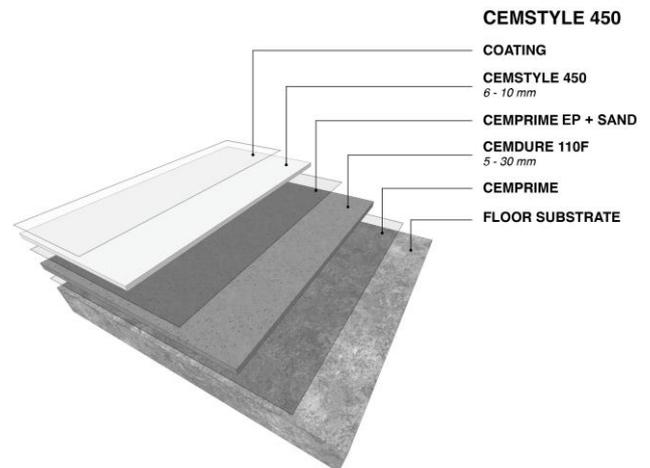
CEMSTYLE 450 is designed for use as a top layer of concrete subfloor in domestic, commercial and industrial buildings.

### INSTALLATION

CEMSTYLE 450 can be applied with an automatic continuous mixer pump (without mortar hopper). When pumping pigmented CEMSTYLE materials, it is recommended to first go over the pumped surface with a flat spatula and then with a spike roller to obtain a floor which is as evenly colored as possible. This has to be done within the open time of the material (depending on the local conditions).

CEMSTYLE 450 has a very good liquidity and provides a very smooth surface. The semi-hardened material may be easily formed or cut allowing any necessary adjustments to be made.

### LAYER BUILD-UP



### TECHNICAL DATA

Water content 18%. 50% RH and temperature of 20°C during processing

Flexural strength	≥ 6 N/mm <sup>2</sup> after 28 days
Compressive strength	≥ 35 N/mm <sup>2</sup> after 28 days
Adhesion to subfloor	≥ 2 N/mm <sup>2</sup>
VOC-value	free from ammonia and formaldehyde
Particle size	max. 1 mm
Free shrinkage	< 0,5‰ (measured at 50% RH)
pH-value	approx. 11,5
Flow ring test (SS 923519 (diam.50x23mm))	150 - 155 mm
Water stability	water stable (expansion under water < free shrinkage)
Material consumption	approx. 1,75 kg per mm thickness/m <sup>2</sup>

### PROCESSING DATA

Water admixture	18% (4,5 liter/ 25 kg bag)
Min. floor temperature	+10 °C
Dry powder density	approx. 1,6 g/cm <sup>3</sup>
Wet density	> 2 g/cm <sup>3</sup>
Open time	approx. 25 minutes depending on temperature
Layer thickness	6-10 mm (max 30 mm)
Curing time	1-2 hours for foot traffic 24 hours for light traffic 1 week for full loads
Storage	6 months in dry conditions, max. 20°C and 50% RH

## SUBFLOOR AND PREPARATION

CEMSTYLE 450 should be laid on a well-prepared subfloor.

The surface to be treated must be hard, sound and free from surface contamination, all dust should be vacuumed from the surface. Concrete laitance and old coatings should be removed mechanically e.g. by enclosed shot blasting, scabbling or scarification. Concrete contaminated by oil or grease may require flame gunning and/or treatment with a proper degreaser. All loose parts and parts that can interfere with bonding must be removed and a bond strength of at least  $\geq 1.5 \text{ N/mm}^2$  is required. Any joints, cuts and expansion joints should be repeated.

The preferred method of priming is a 2 component epoxy primer (CEMPRIME EP). The wet primer has to be broadcasted excessively with dry quartz sand (grain size 0.4 - 0.8 mm). After curing the redundant sand has to be removed from the surface by vacuuming.

## MIXTURE

CEMSTYLE 450 can be mixed in an automatic continuous mixer pump (without mortar hopper). Only use clean potable water with a max. temperature of  $+20^\circ\text{C}$  at a rate of 4,5 liter per 25 kg bag. The mixed material should be used within 25 minutes.

Flowing lines and color nuances are a typical aesthetic aspect in pigmented cementitious floor systems.

## CLEANING

All tools and equipment should be cleaned promptly with water.

## APPLICATION

Door thresholds, stairs, drains and gullies should be isolated with foam barrier strips. Larger areas should be divided into bays. Normal width of the bay is 8 -12 metres, depending on the pump capacity.

## POST-TREATMENT - MAINTENANCE

It is recommended to protect CEMSTYLE 450 after curing (min. 24 hours) with an appropriate coating, impregnation or wax. Applying a protection does not replace the daily maintenance of the floor.

## HEALTH AND SAFETY



Contains cement, cement moist is corrosive. Protect eyes and prevent prolonged skin contact, keep out of reach of children. CEMSTYLE 450 does not contain casein or other protein bearing additives that develop ammonia during the curing process. For further information refer to Health and Safety data sheet of CEMSTYLE 450.

**Transport:** No classified product

## GENERAL

The general information provided in the present technical description, application guidelines and other recommendations, is based on research and experience. However, the client is obliged to determine himself whether the products are suitable for use. The characteristics given here are average values, obtained at  $20^\circ\text{C}$  and 50 RH, and were drawn up according to the current state of technology. The given colours of our products are purely as an indication and can/will differ, depending on the raw materials and the conditions on site during the application. The ordering of CEMSTYLE products includes the acceptance of the colour. As of publication, the present technical descriptions will replace all previous ones.

Please take into account different local conditions such as ventilation, floor temperature and humidity.  
Do not process at temperatures below  $+10^\circ\text{C}$ .  
High humidity and low temperatures slow down the curing.  
Do not add other products!

CEMSTYLE 450 is a rigid, non-structural topping. It is not possible to predict the appearance of micro-cracking in a non-structural topping and such overlayers may not be capable of restraining movement from the substrate. Reflective cracks may appear due to vibration, substrate flexure or existing joints and cracks.

CEMSTYLE 450 is designed as a wear surface for foot traffic or rubber wheeled traffic. The result of highly localized imposed loads, such as steel or hard-plastic wheeled traffic, heavy metal equipment, or pallets with protruding nails, may cause abrasion or gouging to the flooring surfaces.

Consult our web site [www.cemart.eu](http://www.cemart.eu) to download the latest version of our technical data sheet.



Cemart NV, Maatheide 76E, B-3920 Lommel



### EN 13813 CT-C35-F6 - Cementitious screed

Reaction to fire	A1	Wear resistance	A9
Release of corrosive substances	CT	Sound insulation	NPD
Water permeability	NPD	Sound absorption	NPD
Water vapour permeability	NPD	Thermal resistance	NPD
Compressive strength	C35	Chemical resistance	NPD
Flexural strength	F6		