

## Installation guidelines Nr.14 DEFLOCCULATED CASTABLES WITH ADDITIVE

### General Remarks:

This installation instruction is binding for special deflocculated castables that needs a special additive in order to achieve better workability.

These products consist of a dry component that have to be mixed with water **AND** a liquid additive before use.

### Storage:

Despite the waterproof packing, store the product in a cool, but frost-protected place. The original waterproof packing should be left as long as possible onto the pallets as additional protection.

### Measures at site:

Before installing, the job site has to be clean, so that no foreign matter can contaminate the product. The equipment required for the installation is a 25 to 50 kg capacity paddle mixer, e.g. a HOBART-mixer, with spare parts. You also need a balance or a graduated measuring glass.

### Mixing instruction:

All devices used for mixing must be cleaned carefully; no foreign material must adhere, as each pollution can impair the setting behavior and the strength of the materials. After interruptions of the mixing process mixing vessel and mixer arms have to be cleaned carefully.

### Mixing with the liquid additive addition:

Never split a bag. It is necessary to avoid contamination during this phase. An intensive paddle type mixer should be used

- Start the mixing of the dry mix during 30 seconds.
- Add 50 % of the specified water amount (in the TDSH or see bag print) and mix for a minute.
- Add the liquid additive on the base of 1% in weight, then mix for a minute.
- Add the remaining water amount (according to the TDSH or the bag print) needs in order to achieve the right consistency. 2 minutes mixing are required to obtain the good consistency.
- The total wet mixing time is supposed to be around 4 minutes.

### Installation

Before starting of the installation, all surfaces have to be cleaned carefully. The products may be applied only at temperatures above +10°C and have to be kept frost-protected before, during and after the installation.

The products have to be installed by troweling.

### Curing:

Generally the castable must be maintained in a humid atmosphere for 24 hours after casting. The castable should not be exposed to either freezing or extremely hot conditions during curing.

### Drying and heating-up:

Each monolithic lining has to be dried. A too rapid heating up can cause bond disruption, spalling and cracking. For precise control use thermocouples placed on the hot face. A standard curve applying to all situations does not exist, each lining being a particular case.

However for a standard installation up to 150mm thickness, without other products to be dried, the following safe indications should be considered:

ambient to 150 °C	@15°C/hour
at 150°C	1 hr per 10 mm thickness
150 to 350°C	@ 15°C/hour
at 350°C	1 hr per 10 mm thickness
350°C to 600 °C	@15°C/hour
at 600°C	1 hr per 10 mm thickness
600°C to service Temp.	@ 25°C /hour

Please contact Calderys for specific drying instructions to suit your installation.

### Safety:

Protection measures indicated in our MSDS should be observed.

### Disclaimer

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