



# MC Erstarrungsbremse K 33

## Chloride free Concrete Retarder with Plasticizing Properties

### Product Properties

- Chloride free
- Admixed with all types of standard cements
- Concrete retarder with plasticizing properties
- Set retarder and plasticizer
- Increases workability

### Areas of Application

- For Piling, Pre-stressed concrete work
- For bridge building, ready-mix concrete
- Can also be used in mass concreting
- Can be admixed with all type of standard cements

### Application Notes

#### General

**MC-Erstarrungsbremse K 33** is a set retarder and plasticizer, formulated to delay the initial set rate of concrete, and increase workability. It is recommended for piling concrete, pre-stressed concrete work, bridge building, ready-mix, and mass concrete.

#### Advantages

The use of **MC-Erstarrungsbremse K 33** enables, successive batches of concrete to set at the same time, and eliminates the risk of cold joints in monolithic structures. It also resists the accelerating effect in high temperatures, and thereby reduces the possibilities of thermal cracking. It permits transportation of ready-mix concrete over long distances, and increase the time factor for placing and compaction.

**MC-Erstarrungsbremse K 33** does not act, as an air entraining agent and its use will increase the 7 and 28 days compressive strength of concrete. After the initial retardation normal hardening of the concrete takes place, which, in comparison to that of conventional concrete, gives a longer workability.

**MC-Erstarrungsbremse K 33** does not contain chlorides. **MC-Erstarrungsbremse K 33** complies with ASTM C 494.

#### Instructions for Use

**MC-Erstarrungsbremse K 33** may be used with all types of cements. It is added during the mixing operations by means of suitable dosing devices but may also be added to the gauging water. The use of **MC-Erstarrungsbremse K 33** will also improve the 7 and 28 days compressive strength of the placed concrete.

The result of **MC-Erstarrungsbremse K 33** can be best assessed after preliminary tests on site. This should be carried out using the actual cement and aggregates required, and in such temperatures that will be used during placing and in accordance to necessary setting time required. Preliminary trials are required to establish suitable dosage in individual cases.

### Further Instructions / Precautions

- To determine individual technical suitability, preliminary tests should be carried out under application conditions. We shall be glad to assist you for your concrete technology testing/needs.
- Relevant standards for production, placing and curing of concrete should be followed.
- Efficient curing is essential for any concrete and is best-achieved using **Emcoril** range of curing compounds. This will avoid negative effects of quick water loss from the concrete.
- Depending upon the concrete mix severe over dosage of the admixture especially retarding plasticizers and superplasticizers may result in bleeding/segregation of concrete, quick loss of workability, extended initial and final setting times etc.
- Slight overdosing may not severely affect the ultimate strength of concrete provided the concrete is properly mixed, handled and placed and adequately compacted and cured.

### MC-Erstarrungsbremse K 33 providing workability and set retardation



### Technical Data For MC-Erstarrungsbremse K33

Characteristic	Unit	Value	Comments
Density	Grams / cm <sup>3</sup>	1.15	± 0.02
Mixing ratio	% By weight of cement	0.2% to 1.0%	Approximately, optimum dosage depends on preliminary trials.

### Product Characteristics for MC-Erstarrungsbremse K33

<b>Type of Product</b>	Concrete Retarder
<b>Form</b>	Liquid
<b>Colour</b>	Brownish
<b>Shelf Life</b>	12 Month from date of Manufacture
<b>Delivery</b>	230 Kg drums and 30 Kg pails
<b>Storage</b>	In Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
<b>Disposal</b>	Empty packs completely and dispose off carefully to protect our Environment

**Note:** The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees, which may differ from the data contained in our information sheets, are only binding if given in written form. The accepted engineering rules must be observed at all times. E. & O.E.

Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.

Edition: January 2013