

Centrament Airpolymer

Microbubbles



PRODUCT PROPERTIES

- Polymer spheres
- Prefabricated air pores
- Reduces capillarity in mortar and concrete
- Improves freeze-thaw and deicing resistance of concrete
- Enhances service life of concrete exposed to frost

AREAS OF APPLICATION

- Concrete used in infrastructure as bridges, roads and waterways
- Very flowable or very stiff concrete which are difficult to air entrain
- Ready mixed concrete
- Pre-cast and/or prestressed concrete
- Shotcrete
- High performance concrete

APPLICATION ADVICE

Centrament Airpolymer is based on elastic micro hollow spheres which act as prefabricated air pores in mortar and concrete. The air pore sizes are smaller than 100 µm. In hardened concrete Centrament Airpolymer forms sphere shaped cavities of prefabricated size.

The air pores reduce capillarity and give freezing water room to expand.

By that a surfactant based air entrainer is no longer necessary to use. The compliance dosage of Centrament Airpolymer is depending on the mix design of mortar or concrete and must be determined in initial type testing.

The freeze-thaw deicing resistance is determined by CEN/TS 12390-9, clause 7 (CDF- Test: Capillary suction of De-icing chemicals and Freeze-thaw test). A testing for each case of application of concrete with Centrament Airpolymer is always required.

The volume of Centrament Airpolymer in fresh concrete is determined with a Roll-a-Meter according to ASTM C173/C173M-01. The test method described in EN 12350-7 is not qualified.

Centrament Airpolymer is added to the fresh concrete after mixing of aggregates, binder material, total water and admixtures. It has to be added separately to the concrete and shall not be premixed with other admixtures, e.g. as superplasticizers or retarders. The necessary mixing procedure has to be evaluated in initial type testing.

Relevant regulations for the manufacture, processing and curing of concrete and reinforced concrete must be observed. It is advisable to carry out initial type testing in laboratory and in factory to determine the desired fresh and hardened concrete properties.

Please observe our general information on the use of concrete admixtures. For further information please contact your local MC Bauchemie organization.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic | Unit | Value | Comments |
|----------------------------|--------------------|--------------------|-----------------------------|
| Density | kg/dm ³ | approx. 0.1 - 0.01 | |
| Recommended dosage range | kg/m ³ | ≤ 7 | per cubic metre of concrete |
| Chloride content (maximum) | % | < 0.1 | mass fraction |
| Alkaline content (maximum) | % | < 0.5 | mass fraction |

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

| | |
|-------------------------------|--|
| Type of admixture | Mouldable glass microbubbles of concrete admixture |
| Designation of admixture | Centrament Airpolymer |
| colour shade | white |
| form | micro-sphere |
| Notified body | KIWA GmbH MPA Berlin-Brandenburg |
| In-company production control | ETA 17/0587 issued 4/10/2017 |
| self-monitoring | EN ISO 9001 |
| delivery form | |
| Storage | |

Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : BZM10

Note: The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2100004403]