

DURAHIT® Crystal Ad 1000 (DM)

Item No 3650

Integral crystalline water resisting admixture acc. to DIN EN 934-2 in powder form

FIELDS OF APPLICATION

DURAHIT® Crystal Ad 1000 (DM) is an integral crystalline admixture especially designed for providing a permanent waterproofing system in concrete projects.

The waterproofing admixture is suitable for concrete with advanced requirements in durability and quality and where optimum waterproofing is required.

DURAHIT® Crystal Ad 1000 (DM) is recommended for above- and below grade applications and particularly suitable for concrete applied in:

- Marine structures like harbours and docks
- Dams and water reservoirs
- Water containment structures
- Swimming pools
- Tunnel- and underground constructions
- Waste treatment facilities
- Basements and foundations
- Precast concrete

DURAHIT® Crystal Ad 1000 (DM) achieves a very effective protection mechanism which provides the following benefits to concrete:

- Significantly decreased water penetration
- Interior or exterior waterproofing against high hydrostatic pressure
- Enhanced resistance against chemicals

DURAHIT® Crystal Ad 1000 (DM) advances concrete's durability and long-term performance and can make a contribution to ecological sustainability.

DOSAGE

Recommended dosage range: 1.0 – 2.0 mass-% of the cement content.

WORKING PRINCIPLE

DURAHIT® Crystal Ad 1000 (DM) consists of Portland cement, very fine treated silica sand and various active, proprietary chemicals that react with the free lime and moisture in the concrete mix in order to generate permanent and durable crystalline system.

This crystal formation becomes an integral part of the cement matrix providing waterproofing properties and optimum protection against water ingress

DURAHIT® Crystal Ad 1000 (DM) still allow the passage of vapour diffusion through the concrete structure.

TECHNICAL DATA

Homogeneity	homogenous
Colour	grey
State	powder
Bulk density	1.40 ± 0.03 g/cm ³
pH-value	11.5 ± 1
Workability	from +5 °C
Chloride content	≤ 0.1 mass-%
Alkali content	≤ 10.5 mass-%
Shelf life	approx. 1 year from date of production if stored properly
Storage conditions	Store in a dry place in unopened, undamaged original packaging. Protect from moisture, direct sunlight and extremes of temperature.

PROCESSING INDICATIONS

DURAHIT® Crystal Ad 1000 (DM) should be added to the aggregate as it is being batched or to the initial batching sequence.

The mixing time must comply with the regulations defined in EN 206-1.

Do not add DURAHIT® Crystal Ad 1000 (DM) at the end of the batching sequence! It may result in extended setting characteristics or premature stiffening of the concrete.

DURAHIT® Crystal Ad 1000 (DM) may require a slight increase in air entrainment dosage.

Setting times may be slightly extended depending on cement chemistry. However, under normal conditions, DURAHIT® Crystal Ad 1000 (DM) will provide a normal set concrete. Concrete containing DURAHIT® Crystal Ad 1000 (DM) may develop higher ultimate strengths than plain concrete. Trial mixes should be carried out under project conditions to confirm concrete performance.

In order to ensure concrete performance of all project concrete ingredients, pre-tests should be performed.

This product is classified as hazardous according to the CLP regulations. See safety data sheet for further information.

PACKAGING

- 20 kg bag
- Other quantities on request

REMARKS

This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indication are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

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SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE CONCRETE ADMIXTURE!