

Heraclex life200_1.0

Heraclex[®] compound for Ultra Long Life Concrete (ULLC)

Fields of application

The Heraclex[®] life200_1.0 is a compound suitably studied for obtaining a cement-based composite material showing excellent durability under several severe environmental conditions as well as excellent mechanical performances.

Mixture composition

The content of the Heraclex[®] life200_1.0 bag must be added to sand, cement, fibres and water to obtain a customized formulation.

Thanks to the technical support of INNOVAcrete on the concrete mix design, the fibre reinforced concrete mixture obtained by using Heraclex[®] life200_1.0 guarantees outstanding durability performances under freezing and thawing cycles and exposition to chlorides as well as excellent compressive and bending strengths and high abrasion resistance.

The optimized mix design will be different for each customer, and tailored to meet his specific needs.

Physical and mechanical properties

By using Heraclex[®] life200_1.0 a high performance concrete with the following characteristics can be realized:

- high resistance to compression, concrete strength class equal to or higher than C90/105 (>65 MPa after 1 day of wet curing at 20°C, >95 MPa after 7 days of wet curing at 20°C, >115 MPa after 28 days of wet curing at 20°C);
- high resistance to bending (>10 MPa after 1 day of wet curing at 20°C, >18 MPa after 28 days of wet curing at 20°C);
- high modulus of elasticity (> 40 GPa after 28 days of wet curing at 20°C);
- high abrasion resistance in relation to vehicular traffic, wind or flowing water;
- high resistance to cracking;
- high durability and good longevity under severe conditions such as: weather, freeze-thaw cycles, high traffic;
- low permeability to water penetration;
- resistance to chemicals;
- high resistance to de-icing agents;
- high impact resistance;
- high fatigue resistance;
- ease of placement;
- compaction without segregation;
- resistance to bacterial and mold growth.



Technical data

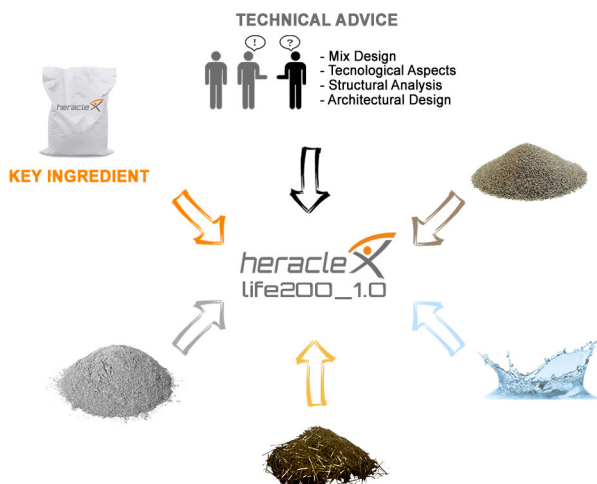
State: Powder
Colour: Ivory
Apparent density: max. 0.700 kg/dm³
Grain size: min. 98 % < 0,600 mm
Content in chloride: max 0,05%
Humidity: max. 6 %
Water solubility: partially soluble
Temperature of use: > 0°C
Storage: dry and protected place



*Heraclex® life200_1.0
is available in 20 kg bags.*

Use

The content of the Heraclex® life200_1.0 bag should be added to sand, cement, fibres and water, according to the mix proportions suggested by the INNOVAcrete team in order to obtain a customized formulation.



Storage and validity

Heraclex® life200_1.0 has 12-month validity from delivery note issue date, if it is stored in a dry place and in original bags kept perfectly closed. Should moisture be absorbed by the product, this does not affect its efficaciousness, but it makes its dosage difficult and the distribution in the finished mixture not homogeneous. It is therefore advisable to close bags carefully after each collection.

Precautions

Heraclex® life200_1.0 is normally harmless in contact with skin. It is easily removable from any surface with water. Inhalation can cause irritation of the first part of the respiratory tract. This trouble disappears immediately by stopping handling; it is therefore advisable to use dust masks and not to disperse it in the environment. In case of accidental loss it must be picked up in the dry state and discharged in an authorized waste dump.

The specifications stated in this report have been got either through standardized tests and rules or their modifications.

All the data stated in this technical sheet are based on our knowledge and experience. However, before using the item differently from indicated, it is advisable to carry out preventive tests. In any case, INNOVAcrete does not assume any responsibility for any damage or defect caused by the use of our products, as the employment conditions are not under our control. We also inform that our technical service is at our customers' disposal for any information concerning the correct employment of our products.

Latest version

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This Technical Data Sheet is valid until replaced by a new issue.