

RHEOMAC[®] UW400

Admixture for improving underwater concrete.



Description

RHEOMAC UW400 is a ready-to-use powdered admixture specially developed for making underwater-placed concrete. The concrete treated with RHEOMAC UW400, when placed under water, remains workable, cohesive, homogeneous and without washing out, even in moving water.

Technical data

Form:	powder
Colour:	beige
pH value at 20°C:	not applicable
Chloride content:	< 0,1% m/m
Viscosity at 20°C:	not applicable
Na ₂ O equivalent:	≤ 1%
Processing temperature:	from 5°C
Specific surface	not applicable
Solubility in water:	not soluble
Toxicity:	not toxic

Packaging and storage and shelf life

RHEOMAC UW400 is supplied in 10 kg bags. Stored in tightly closed original packaging at a temperature between +7°C and 25°C and protected from frost, RHEOMAC UW400 has a shelf life of at least 18 months.

Dosage

RHEOMAC UW400 is recommended for use at a rate of 250 to 1600 gr per 100 kg of cement for most concrete mixes using average concrete ingredients. For specific applications, other dosages can be used. Consult in this case your BASF-CC representative.

Compatibility

RHEOMAC UW400 can be used in conjunction with other BASF-CC admixtures conforming to CEM standards. It is recommended to use RHEOMAC UW400 and an air-entraining agent from the type MICRO-AIR if the concrete must be resistant to freezing, thaw and melting. RHEOMAC UW400 can either single or as component effectively be used in a BASF-CC GLENIUM admixture system. When used with other admixtures, each admixture must be dosaged separately into the mix. The BASF-CC GLENIUM admixture system will produce a concrete with high performance, high strength, low water-cement ratio, flowing concrete that exhibits superior resistance to washout of cement and fines.

Fields of application

RHEOMAC UW400 is recommended for use in all types of concrete, grouts and mortars which have to be placed under water.

RHEOMAC UW400 is recommended for efficiently pumping or pouring underwater-placed concrete while maintaining workability and increasing pumpability and placeability. RHEOMAC UW400 is particularly useful in following applications:

- Underwater repairing of concrete pillars exposed to weathering, process of decomposition, scaling, peeling off or corrosion.
- Underwater pouring or pumping where costly methods of dewatering are impossible.
- Pouring or pumping of concrete in tidal waters, which are permanently exposed to waves and the force of possible currents.



The Chemical Company

- Underwater pouring or pumping of concrete for filling cavities and gravel pockets at the bottom of dams.
- Pouring or pumping of concrete under slope.

Features and benefits

RHEOMAC UW400 admixture exhibits superior resistance to washout of cement, surface water and segregation. The following special qualities are also provided:

- Increased placing of large volume
- Maintained cohesiveness
- Prevented segregation and washing out
- Virtually eliminate segregation, even with highly fluid, high water-cementitious ratio mixes
- Reduce/eliminate costly methods of dewatering
- Minimal to no effect on water demand
- Minimal to no effect on set time
- High resistance to sulphates and chlorides
- Increased relative durability
- Eliminates overdosage of cement
- Increased beton rheology
- Increased erosion resistance

- Minimize environmental impact of cement / washout in water
- Thixotropic action provides stiffening after concrete is placed
- Maintained or increased compressive and flexural strength
- Slump characteristics equal to untreated concrete
- Increased initial and final strength

Note

Placing – Concrete treated with RHEOMAC UW400 is recommended to be discharged at a depth of at least 50 cms below the surface of calm water and of at least three times the maximum height of the wave when the water is agitated (in order to avoid any rolling action).

Precautions

RHEOMAC UW400 is not harmful to health or environment; no special labelling is required. Avoid contact with eyes and skin. Wear gloves and goggles. In case of contact with the eyes, flush with water for at least 15 minutes and consult a doctor. Keep product out of reach of children. For additional information, consult the material safety data sheet.

BASF Construction Chemicals Belgium NV

Industrieterrein 'Ravenshout' 3711
Nijverheidsweg 89
B-3945 Ham
Tel. +32 11 34 04 34. Fax +32 11 40 13 92

www.basf-cc.be
mbt.be@basf.com



BASF Construction Chemicals Nederland bv

Postbus 132, Karolusstraat 2
NL-4900 AC Oosterhout
Tel. +31 162 47 66 60. Fax +31 162 42 96 94

www.basf-cc.nl
mbt.nl@basf.com



Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations regarding the use of such products are made without guarantee, since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose of which he intends to use it and that the conditions of use are suitable