

# RHEOMAC<sup>®</sup> UW450

## Anti-washout Admixture

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### Product description

RHEOMAC<sup>®</sup> UW450 anti-washout admixture is a ready to use, liquid admixture specially developed for concrete placed under water. Concrete treated with RHEOMAC<sup>®</sup> UW450 admixture exhibits superior resistance to washout of cement and fines.

### Fields of application

RHEOMAC<sup>®</sup> UW450 is recommended for use in all types of concrete pumped or tremied under water, where thixotropic action is desirable. RHEOMAC<sup>®</sup> UW450 admixture is especially helpful in extreme conditions where conventional concrete or placing techniques would result in a high percentage of material loss due to washout. RHEOMAC<sup>®</sup> UW450 admixture is particularly useful in mortar or grouting applications where mixtures are typically more fluid and have a higher potential for washout.

### Features and benefits

RHEOMAC<sup>®</sup> UW450 admixtures produces a concrete mixture highly resistant to washout, while maintaining workability, pump ability and place ability.

The following special qualities are also provided:

- Minimal to no effect on water demand
- Reduce or eliminate concrete bleeding
- Slump characteristics equal to untreated concrete
- Virtually eliminates segregation, even with highly fluid, high water-cementitious ratio mixes
- Reduce / eliminate costly methods of dewatering
- Thixotropic action provides stiffening after concrete is placed
- Minimized environmental impact of cement washout in water
- Minimal to no effect on set time

### Packaging

RHEOMAC<sup>®</sup> UW450 admixture is supplied in 210 litre drums and 1000 litre bulk containers.

### Technical data

Form	semi-viscous liquid
Color	Light Tan
Density kg/m <sup>3</sup> : 20°C	1200±100
pH: 20°C	Approx. 7

### Application procedure

For under water concrete ACI340R, Chapter 8, "Concrete placed under water" recommends certain basic mixture proportions such as 355kg/m<sup>3</sup> or more total cementitious with 15% pozzolanic material, a maximum water/cementitious ratio of 0.45, fine aggregate content of 45 to 55% by volume of total aggregate and air contents of up to 5%. A slump of 15 to 23cm is generally necessary and occasionally a slightly higher slump is needed. RHEOMAC<sup>®</sup> UW450 admixture should be used with a water-reducing admixture such as the Pozzolith range.

For high slump concrete use RHEOMAC<sup>®</sup> UW450 with admixture such as Rheobuild 2000B or Glenium. This combination will produce a high performance self compacting concrete, that exhibits superior resistance to washout of cement and fines.

### Consumption

RHEOMAC<sup>®</sup> UW450 admixture is recommended for use at a dosage range between 260 and 1300 ml/100kg cementitious content for most concrete mixtures using average concrete ingredients. Because of variations in job conditions, applications and concrete materials dosage rates outside the recommended range may be required.

*Do not use RHEOMAC<sup>®</sup> UW450 admixture with naphthalene based high range water reducers. Erratic behaviour in slump, pump ability and washout may be experienced.*

### Storage

RHEOMAC<sup>®</sup> UW450 admixture must be stored at temperatures above 7°C to avoid dispensing difficulties due to thickening. Do not allow the products to freeze. RHEOMAC<sup>®</sup> UW450 admixture cannot be reconstituted after thawing.

When transferring RHEOMAC<sup>®</sup> UW450 admixture to other containers, contact with water in hoses, pumps or receiving vessels must be avoided to prevent gelling.

### **Safety precautions**

RHEOMAC<sup>®</sup> UW450 is non-hazardous. However, it is recommended to follow standard chemical handling procedures. Wear gloves and eye protection when handling.

See the Material Safety Data Sheet for full safety information.

The information given here is true, represents our best knowledge and is based not only on laboratory work but also on field experience. However, because of numerous factors affecting results, we offer this information without guarantee and no patent liability is assumed. For additional information or questions, please contact your local UGC representative.

#### **Headquarter:**

#### **BASF Construction Chemicals Europe Ltd**

MEYCO Global Underground Construction

Vulkanstrasse 110

8048 Zurich, Switzerland

Phone +41-58-958 22 11

Fax +41-58-958 32 46

For more information: Visit us: [www.meyco.basf.com](http://www.meyco.basf.com) Contact us: [meyco.ugc@basf.com](mailto:meyco.ugc@basf.com)