

Arcrete UW505

Anti-Washout Admixture for Underwater concrete and Mortar
Complies to the Requirements of CRD-C661

DESCRIPTION

Arcrete UW505 is a unique Bio-polymer anti-washout admixture for the underwater placement of concrete and grout. **Arcrete UW505** increases mix cohesiveness and imparts a variable viscosity characteristic to concrete and grout. It produces concrete that becomes fluid and flowable when sheared or mechanically agitated such as during pumping operations. This characteristic enables concrete to flow easily through and into confined spaces. The mix will revert to a dense, high viscous, consistency when at rest. This cohesive cement paste matrix promotes high compressive and flexural strength development. Suitable for use in tropical and hot climatic conditions.

Arcrete UW505 is recommended for underwater placement of concrete and grout in fresh and saltwater environments. It improves underwater "stacking" characteristics when concrete is placed by tremie operations.

TYPICAL PROPERTIES

Appearance: Brown Liquid

Specific Gravity: 1.18 ± 0.02 at 25°C

Chloride Content: Nil, as per EN BS5075.

Air Entrainment: 1.0% Max from Control Mix.

COMPATIBILITY

With Cements:

Arcrete UW505 can be used with most types of Portland cements as well as Pozzolanic Cements, Natural Pozzolan, Ground Granulated Blast Furnace Slag (GGBFS) (**Arcrete BFS100**), Micro Silica (**Arcrete MS920**) and Fly Ash (**Arcrete FA10**). For use with other special cements, we recommend you contact Arkaz Technical Department.

With Other Admixtures:

Arcrete UW505 should be used with a water reducing admixture from **Arkaz product range**. Due to incompatibility Arcrete UW505 should not be used in conjunction with some admixtures. If other Arkaz admixtures are to be used with Arcrete UW505, please contact Arkaz Technical Department as some admixtures are not compatible.

ADDITION RATES

Range:

Recommendation dosage:-

500 ml – 2000 ml per 100 kg cementitious materials.

The addition rate of **Arcrete UW505** is depending on the characteristics of the mortar or Concrete constituents and air entrainment required. Several factors which affect air entrainment are:

- Type and efficiency of mixing equipment
- Water content
- Fine aggregate content and type
- Cement/lime content and type
- Temperature

Arcrete UW505 is supplied ready for use. should be added to the fresh concrete after all the other mix ingredients have been blended. Addition of the **Arcrete UW505** directly into the concrete too early in the mixing may promote clumping of the mix materials. For best results, the concrete should be prepared in a concrete mixer that can thoroughly shear the materials and blend all the components. Turbine mixers and central mix plants often perform better than dry batched transit mixers. Insufficient mixing or use of less than recommended quantities of **Arcrete UW505** may result in a concrete mix that is more likely to bleed or separate. It is essential that preliminary plant trials are performed, so that the above criteria can be assessed, before dosage levels are finalized. For advice and assistance with your trials we would recommend that you consult Arkaz. Overdosing of **Arcrete UW505** will result retardation, which will manifest itself in prolonged "greenness" and slow development of intrinsic strength of the mortar.

DISPENSING

It is preferable that **Arcrete UW505** should be introduced into the mixer by means of independent automatic dispensing equipment. Such equipment or advice on dispensing can be obtained from Arkaz

METHOD OF USE

Arcrete UW505 When placing concrete under water or through slurries, minimize its free drop through the placement media (e.g., water or slurry) and attempt to place it continuously and without interruption. Keep the discharge point of the placement device immersed in concrete whenever possible. Reduce the amount of water used or in-crease the dosage of **Arcrete UW505** if the concrete or grout appears to separate or bleed. The action of pumping the concrete under pressure into a congested area should indirectly shear the concrete and make it flow readily and easily into the available spaces. If the concrete does not flow readily in these conditions confirm that the concrete is not approaching initial set and that the mix has been formulated properly. For advice on specific application, please consult our Technical Services Department.

PACKAGING

Arcrete UW505 is supplied in 200L non-returnable drums.
Alternatively, 1,000-liters totes and bulk deliveries can be arranged.

HEALTH AND SAFETY

For more Safety information you can check Product Material Safety Data Sheet, send an email to ConcreteDoctor@arkaz.com or Contact Arkaz Technical Department.

STORAGE & SHELF LIFE

Arcrete UW505 should be stored in original containers or suitable closed tanks preferably away from extremes of temperature. The product should always be kept in shaded storage. Store under cover, out of direct sunlight and protect from extremes of temperature and should be avoided from any type of contamination that might cause fully changes of the physical properties and material uniformity . Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

Storage Life: 4 months from date of production if stored properly in undamaged unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +25°C. Protect from direct sunlight and frost.

TECHNICAL SERVICE

The technical service department of Arkaz is available to assist in the correct and best use of our products, these resources and advice are at your disposal entirely without obligation.

Please contact:

concretedoctor@arkaz.com

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