

AWA-C61P

POWDERED ANTI-WASHOUT ADMIXTURE AND VISCOSITY MODIFIER FOR CONCRETE

DESCRIPTION:

AWA-C61P is a water-soluble polymer that prevents concrete from washing out by dramatically increasing the cohesiveness and viscosity of the concrete mix during underwater concrete placements.

AWA-C61P inhibits external water from blending with the plastic concrete and dramatically reduces washout of the cement mortar fraction.

ADVANTAGES:

- Reduces washout and mass loss of the concrete mortar fraction
- Reduces and may eliminate concrete bleed water
- Dramatically increases the cohesiveness of the mix consistency
- Reduces segregation in high water-cementitious and high slump mixes
- Maintains normal setting characteristics
- Can be introduced at the batch plant or jobsite
- Dewatering costs are reduced and may be eliminated

APPLICATIONS:

- All types of underwater placements where normal concrete or placing methods would result in large mass loss of concrete from washout
- Highly fluid self-consolidating concrete mixes that require the use of a viscosity modifier to eliminate segregation.
- Mixes requiring reduction or elimination of bleed water.

DOSAGE RATE:

AWA-C61P is available in 1 through 10-yard water soluble bags and can be custom packaged for any job. Typical dosage is one bag per number of yards specified on bag package label to be treated. Because local job conditions, materials, and applications vary, this product may require dosages outside recommended dosage ranges.

MIX PERFORMANCE DATA:

U. S. Army Corps of Engineers specification, CRD C 61, Test Method for Determining Resistance of Freshly Mixed Concrete to Washing Out in Water, is a method to determine a concrete mix design's ability to resist mass loss during underwater placements from washout. Concrete containing **AWA-C61P** exhibits excellent anti-washout performance when compared to concrete with no anti-washout admixture.

Compressive Strengths:

AWA-C61P has little effect on the compressive strength of the concrete. If concrete mix design is proportioned according to ACI 304 R, test specimens will produce higher compressive strengths than the specification usually requires. If a lower water-cementitious ratio or higher compressive strength is necessary, the use of additional high-range water reducer, such as **Superflo 2000RM**, will be needed. Do *not* use a naphthalene-based high range water reducer with **AWA-61P**.

Bleed Water:

Bleed water is significantly reduced and may be eliminated in concrete mixes, neat mixes, and grout mixes.

Slump:

Underwater concrete mix designs should be placed at between 8 and 10 inch slumps. A decrease in slump should be expected after the addition of **AWA-C61P**. An additional dose of high-range water reducer may be necessary to meet specified slump for placement. The slump retention of the underwater concrete mix will be similar to normal concrete mixes.

Initial Set Time:

AWA-C61P, when used within the recommended dosage range, has very little effect on set time.

Air Entrainment:

When using **AWA-C61P** in a mixture, the air entraining admixture dosage requirement may be slightly decreased to reach specified air content.

TECHNICAL NOTE:

AWA-C61P should be incorporated into the mix after all other ingredients have been added and completely mixed. **AWA-C61P** can be added at the batch plant or jobsite.

RECOMMENDATIONS:

ACI-304R, Chapter 8 (Concrete Placed Underwater), suggests certain mix proportions for underwater placements. Here are some examples:

- Slump range 6 to 9 in. (150 to 230 mm)
- Air content – 5%
- Minimum cementitious of 600 lbs/yd. (356 kg/m)
- 45% to 55% fine aggregate by volume all aggregates
- Pozzolanic admixtures, such as fly ash, should be used at rate of 15% of total cementitious

MIX DESIGN:

A normal water-reducing admixture, such as **FINISHEASE NC, LC-400P and LC-500** or a high range water reducing admixture such as **SUPERFLO 2000 RM** should be incorporated into all mixes containing **AWA-C61P** to produce pumpable and flowing concrete with high slump and superior resistance to washout.

It is recommended that all underwater concrete be placed continuously by tremie pipe or through a concrete pump.

PACKAGING:

Available in 1, 5 and 10 yard dosages contained in water soluble bags. Custom packaging and dosages can be manufactured per customer request.

SHELF LIFE:

18 months



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