### Quality Matters

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# ADMIX LS140

#### Low dosage Lignin-Polymer based concrete plasticizer with retarding property

**ADMIX LS140** is a liquid admixture used for increasing concrete workability or to reduce water content in order to gain higher strengths. It meets the requirements of ASTM C-494 Type B&D and Iranian National Standard 2930, as well as other international standards. This product is compatible with all types of cements but due to variety of cement and aggregate's properties, site tests are always recommended in each project.

#### Performance of ADMIX LS140 in concrete

This product effects on water surface tension and better dispersion of cement particles which results in production of a workable concrete.

Concrete with ADMIX LS140 shows strengths higher than concrete without admixture having the same workability. Achieving higher strengths is due to good dispersion of cement particles and better compacting of concrete, this product provides controlled retarding affect, hence delay in initial and final setting time in higher dosages.

#### Applications

The retarding properties as side effect of **ADMIX LS140**, makes it ideal admixture for production of concrete in hot climate and where controlled delay in initial and final set is desirable, such as: mass concrete, dam bodies and foundations, Roller Compact Concrete (RCC) and decks and bridges piles.

#### **Effect on hardened concretes**

Besides stated effects of this admixture on fresh concrete while mixing and casting, it also has significant positive effects on hardened concrete such as: increasing ultimate compressive and flexural strengths, higher E-modulus, improving adhesion to reinforcing and stressing steel, better resistance to carbonation, lower permeability, better resistance to aggressive atmospheric conditions, reducing shrinkage and creep and increasing durability.

#### Properties

Appearance	Free flow liquid	
Color	Dark brown	

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Density	1.170 - 1.175 g/cm3 at 20°C
рН	6-7
Chloride content	< 0.1% w/w

#### Compatibility

This product should not be premixed with any other admixtures unless be approved by Damavand Sefid specialists. In case of requirement of utilizing other admixtures in concrete, it is highly recommended to add them separately. This product is compatible with concretes containing silica fume, fly ash or ground granulated blast or slag cement.

#### **Consumption rate**

Recommended dosage of ADMIX LS140 is 0.2 to 0.6 percent of cement (cementitious materials) content. Dosages outside this range are permissible subject to trial mixes.

#### **Applications notes**

Overdosing may result in retardation and delay in initial and final setting, as well as reducing short term strengths.

#### Mixing

**ADMIX LS140** is a ready to use admixture and should be added to concrete at the time of batching. The best effect would be achieved if the admixture be added to concrete mix after adding 70 to 80 percent of water content. Never add this admixture to dry cement or aggregate. Full mixing is necessary to achieve maximum benefit, so after adding **ADMIX LS140** mix the concrete for 60 seconds in high-speed mixer.

#### Dosages

**ADMIX LS140** is supplied in 220 kg drums and 1100 kg IBCs. Bulk delivery is possible based on request.

#### Packaging

**ADMIX AC470** is supplied in 30 kg containers and 250 kg drums. Bulk delivery is possible based on request.



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#### Storage

This product must be stored in original containers at above +5 °C under cover, out of direct sunlight and protect from extremes of temperature. If frozen, gradually thaw and agitate until completely reconstituted.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage condition contact **Damavand Sefid** Technical Services Department.

#### Safety awareness

**ADMIX AC470** contains alkali materials. Use personal safety devices while using this material. For more information about safety, please read product material safety data sheet.

#### **Quality approval**

All materials produced in **White Damavand** are under strict control of QC department and meet the requirements of international standards.

#### Supplementary data

For additional information, please contact company's specialists.



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