ARGON®

High Range Water Reducing and Retarding Concrete Admixture

RAMKA
CONSTRUCTION
CHEMICALS

ARGON® is a high performance superplasticizer for ready-mix concrete. It is specially designed to improve the rheology of concrete in hot weather, to allow for very flowable and with low viscosity even at very low water/cement ratios.

Applications

- Pumpable concrete
- Ready-mix Concrete
- Concrete containing Micro silica, GGBS and PFA
- Concrete with high water reduction
- High efficient concrete applications
- Variable use in different concrete systems with different raw materials

Approvals / Standards

- ASTM C494-Type G
- ASTM C1017-Type II
- ACI 212.3R-16

Features

- Cement dispersion agent
- Provides improved material flow and extrusion characteristics

Advantages / Benefits

- Long transportation time in hot weather
- High water reducing ability (Very Low W/C)
- Low concrete viscosity
- Economical concrete design
- Increase early and ultimate compressive strength with normal setting.
- Excellent concrete durability and rheology
- Lower permeability
- Excellent handling properties
- Lowers drying shrinkage and creep

Guideline for Use

Mixing

For maximum efficiency, add ARGON admixture after wetting of aggregates and cement, and after at least 75% of final mix water has been added. Allow at least 90 seconds of mixing after addition of ARGON admixture.

Dosage

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Recommended dosage ranges from 0.2 To 1 kg per 100 kg of cement. Other dosages may be recommended in special cases according to the specific site conditions. It is highly recommended that trial mixes be prepared to determine the optimum dosage for your specific performance requirements.

Compatibility

ARGON is compatible with concretes containing silica fume, fly ash, or ground granulated blast or slag cement. In case of requirement of utilizing other admixtures in concrete, it is highly recommended to add them separately. Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information about specific combinations.

Effect of Overdosing

Over dosage may cause delay in the setting time, bleeding and segregation problems.

Effects

While mixing and casting, it 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.

Storage

This product must be stored in original containers at +10°C to +30°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 RAMKA Technical Services Department.

Basis Of Data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Product Information

Chemical Base	Polycarboxylate Ether
Homogeneity	Homogenized
State	Liquid
Packaging	20KG Plastic Can / 1100KG IBC Container
Alkali Content (Na2O Equivalent)	< 5 g Na2O equivalent/L
Chloride Content	< 0.1%
Freezing temperature	-3°C
Appearance / Color	Transparent
Shelf Life	12 months from date of production if stored properly in undamaged unopened, original sealed packaging
Storage Condition	Store in dry conditions at temperatures between +10°C and +30°C. Protect from direct sunlight and frost.
Density	1.18±0.05 g/cm^3 at 20°C
PH-Value	3-7
Air Entrainment	Typically, less than 2% additional air is entrained at normal dosages.
Recommended Dosage	0.2 - 1% by weight of cement

Precautions

Health and Safety

ARGON does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire

ARGON is water based and non-flammable. Cleaning and disposal Spillages of ARGON should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

Additional Information

For additional information on ARGON admixture, consult to our Technical Services Department.

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Important Notes: The information, and, in particular, the recommendations relating to the application and end-use of RAMKA products, are given in good faith based on RAMKA's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with RAMKA's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. RAMKA reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.