

# ADMIX RT460

## Concrete Retarder and Set Retarding Admixture for Construction Materials

**ADMIX RT460** is a liquid admixture used to retard setting time of cement based and constructional materials such as gypsum and lime. Retarding effect of this admixture can be controlled by adjusting dosage rate.

This product is compatible with all types of cements but dosing table is prepared based on standard Portland cement. Due to variety of cement and aggregate's properties, site tests are always recommended in each project.

### Performance of ADMIX RT460 in concrete

When adding to concrete, the product forms a barrier around cement particles and prevents hydration of cement for desired period of time. The barriers will disappear after defined time. Durability of barriers will be higher by increasing dosage used.

### Applications

The main application of this admixture is in hot weather concreting to eliminate fast setting of concrete, adjusting advancing time in slip formworks and mass concretes to control fast increase of core temperature in order to control thermal cracks. It is also used in continual concreting in decks and bridges piles.

### Effect on hardened concretes

Besides stated effects of this admixture on fresh concrete, it also has significant positive effects on hardened concrete. In general, slow setting time in concrete results in less voids and minimizing dry shrinkage cracks

### Properties

Appearance	Free flow liquid
Color	Colorless
Density	1.08 - 1.09 g/cm <sup>3</sup> at 20°C
pH	8 - 9
Chloride content	< 0.1% w/w



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**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. **ADMIX RT460** is compatible with concretes containing silica fume, fly ash, or ground granulated blast or slag cement.

**Dosages**

The numbers in below table show dosages in liters per 100 kg of cement.

Retarding (hrs.) \ Concrete temp (°C)	3	5	7	9	12	15	18	21
+ 10	----	-----	0.20	0.30	0.50	0.70	0.90	1.00
+ 15	----	0.10	0.30	0.40	0.60	0.80	1.10	1.50
+ 20	0.10	0.20	0.40	0.50	0.80	1.10	1.40	1.80
+ 25	0.20	0.30	0.50	0.60	1.00	1.50	2.00	----
+ 30	0.30	0.40	0.60	0.80	1.20	2.00	-----	----
+ 40	0.50	1.30	2.00	-----	-----	-----	-----	-----
+ 10	----	-----	0.20	0.30	0.50	0.70	0.90	1.00

**Packaging**

**ADMIX RT460** is supplied in 220 kg drums and 1100 kg IBCs. Bulk delivery is possible based on request.

**Mixing**

**ADMIX RT460** 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 **ADMIX HE310** to dry cement or aggregate. Full mixing is necessary to achieve maximum benefit, so mix the concrete for 60 seconds in high-speed mixer. Probable bleeding phenomenon in concrete is due to weak portion of aggregates and can be improved by adding fillers.

**Storage**

This product must be stored in original containers at above +5 °C under cover, out of direct



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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 **White Damavand** Technical Services Department.

#### **Safety awareness**

**ADMIX RT460** does not contain any hazardous substances. 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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