

# Arcrete D51 R

Water Reducer & Set Retarder  
ASTM C494 Type A & D and BS EN 934-2

## DESCRIPTION

**Arcrete D51 R** is a Water Reducer with set retardation effect developed to enhance and improve the slump retaining properties of concrete, whilst providing improved compressive strengths also it improves the flow of concrete as it is highly flexible and effective over a wide range of cement contents and types. The product is especially beneficial in hot climate conditions.

## TYPICAL PROPERTIES

**Appearance:** Dark Brown Liquid  
**Specific Gravity:** 1.14 at 20°C  
**Air Entrainment:** 1% Max from Control Mix.  
**Chloride Content:** Nil according to BS5075.

## COMPATIBILITY

### With Cements:

**Arcrete D51 R** is compatible with all Portland, Pozzolanic and Blast Furnace cements. It is also compatible with concrete containing fly ash and silica fume.

### With Other Admixtures:

**Arcrete D51 R** should not be premixed under any circumstances with other admixtures. The performance of the product will be affected by the presence of other chemical admixtures. We recommend Arkaz be contacted for Advice in these circumstances.

## ADDITION RATES

### Range:

0.1% - 0.8 % (v/wt.) by wt. of cement

The optimum dosage is assessed after preliminary trials depending upon the actual mix constituents and specifications required.

Addition rates outside of the recommended dosage range may be used for special concrete applications. In such circumstances it is important to conduct preliminary trials on the actual mix constituents to assess the effect on the properties of the concrete at the dosage level specified.

## EFFECTS OF OVERDOSING

Serious overdosing of **Arcrete D51 R** will generally produce a concrete mix of even greater workability, set retardation and a slight increase in air entrainment may be noticed. In SRC mixes and in cooler weather, set retardation will be further increased. If Intentional or accidental increased above the recommended addition rates are encountered, care must be taken to allow for the effect on the stripping time of formwork. In such cases, however, provided the concrete is properly cured the ultimate strength will generally be higher than for normal concrete.

## DISPENSING

It is preferable that **Arcrete D51 R** 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 D51 R** is supplied ready for use. It should be added to concrete mixes either during the mixing cycle or at the same time as the water, or alternatively it should be added in its supplied form to a normal concrete mix a few minutes before the pour is made.

In the latter case further mixing should be provided to ensure complete dispersion.

## PACKAGING

**Arcrete D51 R** is supplied in 210 non-returnable drums. Alternatively, 1,000 liter 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](mailto:ConcreteDoctor@arkaz.com) or Contact Arkaz Technical Department.

## STORAGE & SHELF LIFE

**Arcrete D51 R** should be stored in original containers or suitable closed tanks preferably away from extreme temperature. Always keep product in shaded storage.

Storage Life: 12 months from date of manufacture.

### 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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