

Product Data Sheet

CasTech 8R

Nov-2025, Ver. 01.01



Retarding and Water-Reducing Admixture – ASTM C494 Type B

DESCRIPTION

CasTech 8R is a versatile product which can be utilised to maintain workability and effect water reduction throughout a range of concrete mix designs and ambient temperature conditions.

CasTech 8R is a multi-role admixture capable of functioning as a water reducer to enable strength gains, whilst maintaining workability or set retardation.

USES

- Hot weather concreting
- To increase workability
- To increase compressive strength
- To reduce permeability
- To increase the range of set

CasTech 8R is used wherever effective workability retention and maximum strengths are required, such as:

- Hot weather concreting where controlled delays to initial set are beneficial
- Ready-mix concrete where workability retention coupled with retardation of initial set is beneficial
- Areas of congested reinforcement where high workability is of benefit
- Above or below ground waterproofing where maximum impermeability and watertightness are essential
- In combination with superplasticizers to extend concrete working life to over 2 hours

ADVANTAGES

Key advantages:

- Reduces placing problems in hot weather by improving workability and workability retention
- Increases impermeability and durability
- Higher early and ultimate strengths
- Effective over a wide range of cement contents
- Improves surface finish, pumpability and troweling
- Enables significant economies in mix designs, thereby saving cement

TYPICAL PROPERTIES

Consistence	Liquid
Colour	Dark Brown
Chloride According to EN 934-2	Nil
Classification According to ASTM C494 and ASTM C1017	Type B
Specific Gravity	1.11±0.03 @ 25°C
pH	5.0 ± 1 @ 25°C

ACTION

CasTech 8R acts efficiently on the cement particles by combining the effects of powerful plasticising and deflocculating agents. It considerably improves the workability of concrete mixes without the addition of extra water, and the improved dispersal of the cement particles ensures hydration proceeds under optimum conditions. **CasTech 8R** gives controlled retardation of initial set; setting times are related to cement type and ambient temperature.

COMPATIBILITY

CasTech 8R can be used with all types of Portland cement including Sulphate Resisting and modified cement (Type II). For special cements, contact CasTech Middle East (FZE) Technical Services Department. **CasTech 8R** should not be mixed with other admixtures; if other admixtures are used in the same concrete, they must be dispensed separately.

INSTRUCTIONS FOR USE

CasTech 8R should be added to the mix with the gauging water after sand, cement and aggregate have been blended. Alternatively, **CasTech 8R** can be dispensed after the water has been added to the blended cement and aggregates.

DOSAGE

The normal dosage range is 400 ml to 1200 ml per 100 kg of cement. Higher dosages may be required when certain combinations of materials and conditions are present. In all cases, trial mixes are recommended to determine the correct dosage.

Effects of overdosage:

A severe overdosage of **CasTech 8R** will result in retardation of initial and final set, a slight increase in air entrainment and an increase in workability. Provided it is properly cured, the ultimate strength of the concrete will not be adversely affected. The retarding effects of very high dosages will be exaggerated with SR cement.

PRECAUTIONS

Health & Safety:

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CasTech 8R is non-toxic. Any splashes to the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is up to 1 year when stored as above.

Fire:

CasTech 8R is non-flammable

PACKAGING

CasTech 8R is available in IBC, 210-liter drums and in bulk tanks upon request.

TECHNICAL SUPPORT

CasTech provides technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical Department in these cases.

CasTech MIDDLE EAST FZE

T6-04, Sharjah Airport Free Zone, Sharjah, UAE

P.O. Box: 121661 Tel.: +971-6-5489207

Fax: +971-6-5579879 Email: info@castechchem.com