

InsuCrete 220

High performance, retarding plasticiser for concrete.

DESCRIPTION OF PRODUCT

InsuCrete 220 is a high performance, plasticising retarder beneficial in maintaining workability especially in high ambient temperatures.

PRIMARY USES

- Of particular value for ready-mixed concrete where high workability retention and retardation are of prime importance.
- Hot weather concreting of all types.
- Reduction in permeability, reducing effect of groundwater salts on concrete and steel.
- To improve cohesion, workability and compatibility in concretes using poorly graded/shaped fine aggregates to reduce permeability.

TYPICAL APPLICATIONS

In hot weather concreting where delays to initial and final set are important and where maximum slump retention is of concern - such as site-batched, pre-cast, and ready-mixed concretes.

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ADVANTAGES

- Considerably improves the cohesion of concrete, reducing segregation and bleed water.
- Of particular use where fine aggregates of poor grading and particle shape are evident.
- Reduces placing problems in hot weather, through improved workability and workability retention.
- Improved surface finish.
- Improved trowellability.
- Reduces honeycombing/cold joint effects.
- Improves pumpability of concrete.
- Reduces effects of various modes of attack on concrete and embedded steel through considerable reduction in permeability.

PACKAGING

InsuCrete 220 is available in 1000 ltr bulk.

COMPATIBILITY

InsuCrete 220 can be used with all types of Portland cement including SRC. For use with other Special cements, contact Insumat's Technical Services Department.

InsuCrete 220 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing **InsuCrete 220**, they must be dispensed separately.

ACTION

InsuCrete 220 acts efficiently on cement particles by combining the effects of a powerful plasticising and deflocculating agent and retarder.

STANDARDS

ASTM C- 494 Type A, B and D
BS 5075 Part 1

TYPICAL PROPERTIES

Colour:	Dark brown liquid
Specific gravity:	(1.170 ± 0.01) at 25°C
Air-entrainment:	0-1% depending on dosage rate
Chloride content:	Nil to BS 5075:1982
Nitrate content:	Nil
Freezing point:	0°C; can be reconstituted if stirred after thawing
Flashpoint:	None

DIRECTIONS FOR USE

InsuCrete 220 Optimum performance is achieved when the admixture is added to the mixing water. Never add **InsuCrete 220** to dry cement. No extension to normal mixing time is necessary.

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DOSAGE

Trials should be conducted to determine the optimum addition rates of **InsuCrete 220** depending on mix design proposed and mix performance requirements. As a general guide to these trials, a dosage range of 0.2-0.56ltr/100kg of cement is recommended as a starting point.

Depending on the desired properties, a dosage of up to 800ml/100kg of cement can be used.

SETTING TIMES

InsuCrete 220 acts efficiently to give controlled retardation of initial set. Setting times of concrete mixes are related to cement type and ambient temperatures.

EFFECTS OF OVER DOSAGE

A severe over dosage of **InsuCrete 220** will result in the following:

- Retardation of initial and final set.
- Slight increase in air-entrainment.
- Increase in workability.

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. The retarding effects of very high dosages will be exaggerated with SR cement.

DISPENSING

InsuCrete 220 should be dispensed through a proprietary dispenser, such as is available from Insumat.

SPECIFICATION CLAUSE

InsuCrete 220 a retarding and plasticising concrete admixture manufactured by Insumat to the following specification:

InsuCrete 220 is to be used in all concrete at a dosage range of 0.2 - 0.8 ltr/100kg of cement in accordance with the manufacturer's instructions. Specific gravity 1.170 ± 0.01

Complying with specification type: ASTM C-494 Types B and D and BS 5075 Part 1

Composition: High molecular weight refined lignosulphonates and synthetic retarders.

STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult Insumat's Technical Services Department.

SAFETY PRECAUTIONS

InsuCrete 220 is not a fire or health hazard. Spillages should be washed down immediately with cold water. For further information, refer to the material safety data sheet.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information, contact Insumat's representative.

Insumat reserves the right to have the true cause of any difficulty determined by accepted test methods.

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QUALITY STATEMENT

All products manufactured by Insumat Egypt, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2015, standard.

* Properties listed are based on laboratory controlled tests.

Actual measured data may vary due to circumstances beyond Insumat's control.

Manufacturing Insulating Materials and Products Company

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