

# InsuBuild 1070

High range, water reducing, superplasticising admixture for the production of rheoplastic concrete.

## DESCRIPTION OF PRODUCT

The basic components of InsuBuild 1070 are synthetic polymers, which allow mixing water to be reduced considerably and concrete strength to be enhanced significantly, particularly at early ages.

InsuBuild 1070 is a chloride-free product.

## PRIMARY USES

- Production of rheoplastic self-compacting concrete.
- Pre-cast concrete.
- Low w/c ratio concrete.
- For concrete to be placed in complicated formwork or with congested reinforcement

## ADVANTAGES

InsuBuild 1070 allows the production of very flowable concrete, with a low w/c ratio. Table 1 shows some typical examples of reductions in w/c ratio. Concrete with InsuBuild 1070 shows early strengths higher than concrete without admixture having the same workability. The increase in strength, especially evident at early ages, remains at later ages, both in air-cured and steam-cured processes. Initial and final sets do not change significantly with respect to concrete without admixture.

Therefore, whenever longer transport and finishing times are needed, the use of retarding superplasticisers, such as InsuBuild G 109, is recommended. Due to the reduction in the w/c ratio, all other properties of hardened concrete improve significantly, namely lowered permeability, shrinkage and creep, increased workability and modulus of elasticity. For more detailed information on the influence of superplasticisers on hardened concrete properties, consult your local Insumat representative.

## COMPATIBILITY

InsuBuild 1070 is compatible with all cements and admixtures meeting ASTM standards.

The use of InsuBuild 1070 and InsuAir 111, air-entraining agent, is recommended whenever concrete is required to withstand freeze/thaw cycling.

## PACKAGING

InsuBuild 1070 is available in 1000 ltr bulk

## TYPICAL PROPERTIES

Colour:	Dark brown liquid
Specific gravity:	(1.20 ± 0.01) at 25° C
Chloride content:	Nil to BS 5075
Nitrate content:	Nil
pH:	6-11
Freezing point:	0°C; can be reconstituted if stirred after thawing.

## STANDARDS

ASTM C- 494 Type A and F  
BS 5075 Part 1 and 3

## DOSAGE

**InsuBuild 1070** is normally dispensed, depending on the desired plasticising or water-reducing effect, at a rate of 0.6%-2.5% of cement. Other dosages may be used, depending on the materials and conditions.

## DIRECTIONS FOR USE

InsuBuild 1070 should be added to the mix with the gauging water. No extension to mixing time is necessary. Never add InsuBuild 1070 to dry cement.

Alternatively, when using InsuBuild 1070 to produce flowing concrete at site using ready-mixtrucks, it can be added to the concrete via the feed hopper at the rear of the truck. Mix before discharge for 3 minutes at 10 rpm to produce a fully homogeneous mix.

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When using InsuBuild 1070 to obtain very high early strengths, advantage must be taken of its water-reducing properties.

## EFFECTS OF OVER-DOSAGE

A severe over-dosage of InsuBuild 1070 will result in the following: Retardation of initial and final set Slight increase in air-entrainment Increase in workability.

## DISPENSING

InsuBuild 1070 is introduced into the mixer together with mixing water. The plasticising effect, or water reduction, is higher if the admixture is added to the concrete after 50-70% of the mixing water has been added. The addition of InsuBuild 1070 to dry aggregate or cement is not recommended.

## 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.

## SHELF LIFE

Up to 24 months if stored according to manufacturer's instructions in unopened containers.

## SAFETY PRECAUTIONS

InsuBuild 1070 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.

## 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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**Osman Ahmed Osman**  
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