

InsuBuild 3251

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

DESCRIPTION OF PRODUCT

The basic components of **InsuBuild 3251** are synthetic polymers, which allow mixing water to be reduced considerably and concrete strength to be enhanced significantly, particularly at early ages.

InsuBuild 3251 is a chloride-free product.

PRIMARY USES

- Production of rheoplastic self-compacting concrete.
- Pre-cast concrete.
- Low w/c ratio concrete.
- In complicated formwork or with congested reinforcement.

ADVANTAGES

InsuBuild 3251 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 3251** shows 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 3251**, 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's representative.

COMPATIBILITY

InsuBuild 3251 is compatible with all cements and most air-entraining agents meeting the ASTM standards.

The addition of **InsuBuild 3251** and **InsuAir 111** (air-entraining agent) to concrete is recommended whenever concrete is required to withstand freeze/thaw cycling.

PACKAGING

InsuBuild 3251 is available in 1000 ltr bulk

TYPICAL PROPERTIES

Colour:	Dark brown liquid
Specific gravity:	(1.155±0.01) at 25° C
Air-entrainment:	Maximum 1%
Chloride content:	Nil to BS 5075
Nitrate content:	Nil
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 3251 is normally dispensed depending on the desired plasticising or water-reducing effect, at a rate of between 0.6 and 2.5% of cement weight.

Other dosages may be used, depending on the materials and conditions.

DIRECTIONS FOR USE

InsuBuild 3251 should be added to the mix with the gauging water. No extension to mixing time is necessary. Never add **InsuBuild 3251** to dry cement.

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Alternatively, when using **InsuBuild 3251** to produce flowing concrete at site, using ready mix trucks, it can be added to the concrete via the feed hopper at the rear of the truck. Mix before discharge for 3 minutes at 10rpm to produce a fully homogenous mix.

When using **InsuBuild 3251** 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 3251** will result in the following:

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

DISPENSING

InsuBuild 3251 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 3251** 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 3251 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.

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