

Water-Reducing and Accelerating Superplasticizer based on Poly-carboxylate Ether

DESCRIPTION

CasTech CastSet AC500 is a patented, ready-to-use liquid admixture formulated to reduce water, accelerate time of setting and to increase early concrete strengths. **CasTech CastSet AC500** does not contain calcium chloride and is formulated to comply with ASTM C 494/C 494M Type C & F, accelerating, admixture requirements.

USES

Recommended for use in:

- Reinforced, precast, pumped, flowable, lightweight or normal weight concrete and shotcrete (wet mix)
- Concrete placed on galvanized steel floor and roof systems which are left in place
- Prestressed concrete
- Fast-track concrete construction
- Concrete subject to chloride ion constraints
- Self-consolidating concrete (SCC)
- Pervious concrete
- Masonry mortar

BENEFITS

- Earlier finishing of slabs — reduced labor costs
- Reduced in-place concrete costs
- Reduced or eliminated heating and protection time in cold weather
- Earlier stripping and reuse of forms
- Superior finishing characteristics for flatwork and cast surfaces

ADVANTAGES

Features:

- Accelerated setting time across a wide range of temperatures
- Increased early compressive and flexural strengths

Effect of increased early strength:

- Earlier stripping and re-use of forms for walls and precast work
- Earlier structural use of concrete, as in lift-slab construction, tilt-up, paving and floors
- Earlier tensioning in post-tensioned concrete

- Earlier de-tensioning in pre-stressed concrete
- Potential energy savings in accelerated steam-cured applications by reducing curing temperatures and/or curing time
- Offsetting the set retardation of stabilised concrete

TYPICAL PROPERTIES

Consistence	Liquid
Colour	Light Brown
Chloride According to EN 934-2	Nil
Classification According to ASTM C494	Type C & F
Specific Gravity	1.09±0.02 @ 25°C
Air Entrainment	Less than 1.5%
pH (ISO 4316)	4.0 – 6.0
Alkali Content (EN 480-12) (%)	< 3

COMPATIBILITY

CasTech CastSet AC500 is compatible with all Portland cements that meet recognized international standards. **CasTech CastSet AC500** must not be used in conjunction with any other admixture unless prior approval is received from CasTech Technical Department. **CasTech CastSet AC500** is suitable for mixes containing: Micro silica, Pulverized fuel ash, Ground granulated blast furnace slag cement.

INSTRUCTIONS FOR USE

CasTech CastSet AC500 is a ready to use admixture that is added to the concrete at the time of batching. The maximum effect is achieved when **CasTech CastSet AC500** is added after the addition of 70% to 80% of the water. **CasTech CastSet AC500** must not be added to the dry materials. Thorough mixing is essential and a minimum mixing cycle, after the addition of **CasTech CastSet AC500**, of 90 seconds for forced action mixers is recommended.

DOSAGE

The normal dosage for **CasTech CastSet AC500** is between 0.5% and 2.5% per 100 kg of cement (cementitious material). Dosages outside this range are permissible subject to trial mixes.

PRECAUTIONS

Health & Safety:

CasTech CastSet AC500 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

Product Data Sheet

CasTech CastSet AC500

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should be sought.

Curing:

As with all structural concrete, normal curing methods apply.

Cleaning:

Spillages of **CasTech CastSet AC500** can be removed with

STORAGE

CasTech CastSet AC500 should be protected from extreme temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **CasTech CastSet AC500** has a minimum shelf life of 6 months provided temperature is kept within range 5°C to 30°C.

Fire:

CasTech CastSet AC500 is non-flammable

PACKAGING

CasTech CastSet AC500 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

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