

## Description

Alphaflow 400 is a new generation superplasticiser based on a modified synthetic carboxylated polymer.

Alphaflow 400 has been designed to impart exceptional fluidity to concrete and exhibits particular benefits in the production of self compacting concrete, eliminating the need for vibration in precast production.

Alphaflow 400 if correctly dosed will allow water reductions of up to 40%, resulting in very high early age concrete along with increased long term strength.

## Applications

Alphaflow 400 is suitable for use with all types of cements and offers a wide range of benefits in all precast and structural concrete.

### Benefits in Self Compacting Concrete:

- Extremely fluid concrete. Allows faster placement times.
- The effects of noise pollution are dramatically reduced due to the elimination of the need to vibrate the concrete.
- Outstanding flow properties allow the production of intricate units, even through areas of highly congested steel reinforcement.
- Increased durability is produced due to a more homogenous surface layer.
- High quality products can consistently be produced.
- Segregation and bleeding problems are reduced.

### Benefits as a Superplasticiser:

- Outstanding workability.
- Good retention of workability.
- Imparts high resistance to bleeding and segregation.
- Provides high quality finishes to the concrete with proper mix designs.
- High density, high strength concrete is produced due to the minimisation of voids.



## Standards

All Christeyns products are produced in accordance with the ISO 9001:2000 Quality Management Standard and the ISO 14001 Environmental Management Standard.

## Addition Rates

Dosage rates will be dependent on mix design, process, types of aggregates and the desired effect but typically:

0.2- 2.0 litres per 100 kg cement.  
(0.2 to 2.0% by weight of cement)

Alphaflow 400 should be added with or directly after the mixing water.

In self compacting concrete it is preferable to add it following the mixing water.

## Typical Properties

### Nature

Superplasticiser based on a modified carboxylated polymer.

### Appearance

Yellow to Amber Liquid

### Relative Density

1.10 gcm<sup>-3</sup> at 20°C

### Water Soluble Chloride to EN 480-10

Less than 0.005%

### Alkali Content to EN 480-12

0.2% as Na<sub>2</sub>O equivalent

### Corrosion Behaviour

No performance determined

## Air Entrainment

Typically less than 2% additional air entrained

## Storage

Protect from the extremes of temperature. Should the product freeze its properties can be recovered after thawing and agitating thoroughly. The recommended storage life for the material is 9 months maximum.

## Handling

Alphaflow 400 is a non hazardous product, but in line with general handling precautions to avoid contact with skin or eyes, protective gloves and goggles should be worn.

Refer to the Material Safety Data Sheet for Alphaflow 400 for full details.

## Packaging

200 litre drums, 1000 litre IBC's and bulk deliveries.

### Disclaimer

The physical properties quoted are typical, and should not be taken as a specification. The information supplied in our literature is based on data and experience and is given in good faith. Our policy is one of continuous research and development and we reserve the right to update this information at any time; customers should therefore ensure they have the latest issue. Whilst we guarantee the consistent high quality of our products, we have no control over the circumstances in which our materials are used, site conditions or the execution of the work and are therefore unable to accept any liability for any loss or damage which may arise as a result thereof. Materials are supplied in accordance with our standard conditions of sale.

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