

# SIGMA 412

for

masonry block

SIGMA 412 is a high active water repellent formulated to reduce the permeability of concrete mixes.

## Description

SIGMA 412 is a high active water repellent formulated to reduce the permeability of concrete mixes.

SIGMA 412 is based upon a stabilised dispersion of a blend of insoluble long chain fatty acid salts which form a permanent hydrophobic layer within the concrete pore matrix.

## Application

SIGMA 412 is suitable for use with all types of Portland Cement. It is effective on a wide range of concretes including open textured and lightweight blocks, masonry blocks, aerated concrete, block paving etc.

## Standards

SIGMA 412 complies with the requirements of BS EN 934-2 : 2001 Table 9 for Water Resisting Admixtures.

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

## Addition Rates

Usage rates may vary depending upon the concrete mix and the desired effect. A guideline dosage rate would be in the range of:

0.25% - 1% [v/w] by weight of cement

SIGMA 412 should be added neat to the concrete mix, with, or immediately after the mixing water.



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### Typical Properties

#### Nature

Integral water repellent based on long chain fatty acid salts.

#### Appearance

Milky white dispersion.

#### Relative Density

1.01gcm<sup>-3</sup> at 20°C.

#### Air Entrainment

Less than 1% additional air entrained.

#### Water Soluble Chloride to EN 480-10

Less than 0.005%.

#### Alkali Content to EN 480-12

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

#### Corrosion Behaviour

No performance determined

#### Compatibility

Compatible with all types of Portland Cement.

#### Storage

Avoid freezing - once frozen the product will not recover. Store above 10°C.

SIGMA 412 may exhibit sedimentation upon long term storage - simple agitation by stirring will reconstitute the product

SIGMA 412 has a shelf life of 12 months when stored according to the above guidelines in the original unopened packaging.

#### Handling

SIGMA 412 is a non-hazardous product but in line with general chemical handling precautions to avoid contact with skin or eyes, protective gloves and goggles should be worn.

Refer to the Material Safety Data Sheet for SIGMA 412 for full details.

#### Packaging

200 litre drums, 1000 litre containers and bulk.

#### 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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