

SIGMA 412

Water Resisting Admixture

PRODUCT DESCRIPTION

Sigma 412 is a high active admixture formulated to reduce the permeability of concrete mixes. It is used to significantly reduce water absorbency. **Sigma 412** enables concrete to resist the penetration of water through capillary action.

APPLICATIONS

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

BENEFITS

- Foundation concrete.
- Below ground waterproofing.
- Precast concrete.
- Open texture blocks.
- Lightweight blocks.
- Masonry blocks.
- Efflorescence reduction.
- Ready-mixed concrete.
- Block pavers.

PROPERTIES

Nature:	Liquid
Appearance:	Milky White
Specific Gravity: (20°C)	1.03 g/cm ³
pH:	11.0
Chloride Content:	< 0.10
Alkali Content (Na ₂ O):	< 1.00

ADDITION RATES

Dosage rates vary dependant on mix design, process, aggregate type and the desired effect but typically:

500mls - 3000mls per 100 kg cement
(0.50% - 3.00% by weight of cement)

The correct dosage for the material package used should be determined by laboratory trials, please contact the OSCRETE Technical department for further advice.

STANDARDS

Sigma 412 complies with the requirements of BS EN 934-2 and is produced in accordance with the ISO 9001 Quality Management Standard and the ISO 14001 Environmental Management Standard.



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COMPATIBILITY

Sigma 412 is compatible with all types of EN197 cement systems.

Sigma 412 should not be pre-mixed with other admixtures and should be batched separately.

STORAGE

Sigma 412 should be stored undercover and protected from extreme temperatures, if stored between the range 5°C to 30°C the product will have a minimum shelf life of 12 months.

HANDLING

Please refer to the **Sigma 412** material safety data sheet but in line with normal handling procedures, personal protective equipment should be worn.

Refer to the Material Safety Data Sheet for full details.

PACKAGING

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

NOTES

Sigma 412 should be added with the water or at the end of the mixing process and not directly onto the cement. A mixing time of at least 30 seconds is recommended after the addition of the admixture.

If frozen **Sigma 412** will not recover, avoid freezing at all cost.

When using **Sigma 412** as a concrete water proofer, a minimum cement content of 350kg/m³ and a maximum water/cement ratio of 0.45 should be used with an admixture dosage of 1.0% BWC.

Please consult the OS CRETE technical department for advice on admixture selection.

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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.

