

SIGMA 412R

Retarded Water Resisting Admixture

PRODUCT DESCRIPTION

Sigma 412R is a high active admixture formulated to reduce the permeability of concrete mixes. It is used to significantly reduce water absorbency. **Sigma 412R** enables concrete to resist the penetration of water through capillary action whilst the retarder allows a longer working life of the Cast Stone mix.

APPLICATIONS

Sigma 412R is based upon a stabilised dispersion of a blend of insoluble long chain fatty acids salts and retarder which form a permanent hydrophobic layer within the concrete pore matrix. **Sigma 412R** is ideal for Cast Stone production where the batched mix starts to stiffen before it has been used.

BENEFITS

- Longer life.
- Cost savings.
- Allows larger mix proportions.
- Efflorescence reduction.

PROPERTIES

| | |
|-------------------------------------|------------------------|
| Nature: | Liquid |
| Appearance: | Milky White |
| Specific Gravity: (20°C) | 1.02 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 412R 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 412R is compatible with all types of EN197 cement systems.

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

STORAGE

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

Please consult the OSCRETE technical department for advice on admixture selection.

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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