



WATER REDUCING LIQUID ADMIXTURE FOR SHOTCRETE

PRODUCT

EPSILONE SC – 1 is a chloride free, multipurpose liquid admixture that enhances the quality of Shotcrete in both plastic and hardened state.

The unique composition of EPSILONE SC-1 ensures a better hydration of the cement by improving the dispersion of cement particles and the distribution of cement's hydrates within the concrete matrix.

PROPERTIES

- Water reducer
- Maximises cement hydration
- Provides the optimum workability for Shotcrete
- Reduces risk of cracking
- Good adhesion - ease of pumping
- Improves cohesion and reduces segregation
- Minimal bleed water
- Increased ultimate compressive strength
- Reduces permeability
- Reduces rebound

SCOPE OF USE

EPSILONE SC - 1 is recommended for all wet shotcrete applications:

- Tunnels
- Mining
- Repair
- Slope protection
- Irrigation ditches
- Dams
- Mass concrete
- Polystyrene panels

CHARACTERISTICS

Appearance	Liquid (Light brown)
Specific gravity @ 25°C	1.040 ± 0.02
Chloride content	NIL– BS 5075/EN 934-2

STANDARDS

ASTM C 494 Type A & F
BS EN 934-2
BS 5075: Part 3

INSTRUCTION FOR USE

EPSILONE SC-1 should be dispensed after all Shotcrete constituents are charged in the mixer, preferably after approximately 60% of mixing water addition.

DOSAGE RATES

Range of dosage rates: from 400 to 1500 ml per 100 kg of cementitious content.

Dosage above the recommended values can be employed with prior testing and confirmation of the desired performance with specific materials being used.

Still, the required dosage for a specific job with controlled delay in setting and workability should be determined by in-situ trials

Admixture demand varies with w/b of the concrete, cement type, pozzolanic materials and ambient temperature.

Trials are to be conducted prior to use in order to determine required performance, including consistency, setting, and strength development.

EPSILONE SC - 1 has a linear dosage response so the dosage amount can be precisely tailored to the degree of water reduction required for the application.

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Various concrete materials, ambient air temperature, additions of pozzolanic materials, mixing time, and type and brand of cement will affect dosage rates.

It is suggested that trial mixes be conducted in order to determine the required dosage for achieving the optimum performance with actual Shotcrete components.

EFFECT OF OVERDOSE

Overdose of EPSILONE SC - 1 may result in the following:

- Very slight delay of the initial and final setting times of the concrete mixture.
- Increase in workability
- Increase in concrete air content and reduction in compressive strength.



COMPATIBILITY

EPSILONE SC - 1 can be used in mixtures containing:

- Silica fume
- Fly Ash
- GGBFS
- Pozzolanic Binders

EPSILONE SC - 1 is not compatible with naphthalene sulfonate- and melamine sulfonate-based superplasticizers.

Consult Sodamco-Weber's technical dept. for advice.

PACKAGING

EPSILONE SC - 1 is supplied in:
1000 liter containers.

STORAGE

EPSILONE SC - 1 can be stored up to 1 year from manufacturing date under cover, out of direct sunlight and protected from extreme temperatures. EPSILONE SC - 1 is preferably stored in plastic tank to provide extended product shelf life.

HEALTH & SAFETY

In case of frost, the product recovers its properties after progressive thawing and homogenizing by agitation.

In case of contact with skin or eyes, rinse thoroughly with water. If irritation persists, seek medical attention.

If swallowed, do not induce vomiting and seek medical attention.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

NOTE

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