



EUCON™ SP

HIGH RANGE WATER REDUCER - SUPERPLASTICIZER

EUCLID CHEMICAL

PRODUCT INFORMATION

PACKAGING

Packaged in bulk, 275 gal (1041 L) totes, 55 gal (208 L) drums, and 5 gal (18.9 L) pails

SHELF LIFE

2 year in original, unopened container

SPECIFICATIONS/COMPLIANCES

ASTM C494, Type A & F

AASHTO M194

DESCRIPTION

EUCON SP is a high range water-reducing admixture. It may be added to the concrete at the job site or at the ready mix concrete plant. EUCON SP is formulated to retain plastic consistency for 30-60 minutes after dosing depending on the initial slumps, dosage rates, and ambient temperature. No chlorides are used in its formulation; consequently, it is recommended for prestressed concrete. It is also compatible with air-entraining agents, waterproofing agents, calcium chloride and many other admixtures; however, each material should be added to the concrete separately.

PRODUCT CHARACTERISTICS

FEATURES & BENEFITS

- Produces low water content and low water/cement ratio concrete allowing higher strengths
- Produces flowing concrete with better than normal strengths
- Aids in concrete placement and reduces labor cost
- When used in precast work with Type I and Type III cements, EUCON SP will produce high early strengths

PRIMARY APPLICATIONS

- High performance concrete
- General ready mix concrete
- Heavily reinforced concrete
- Flatwork and mass concrete
- Minimum water content concrete
- Low water/cement ratio concrete
- High slump, flowable concrete

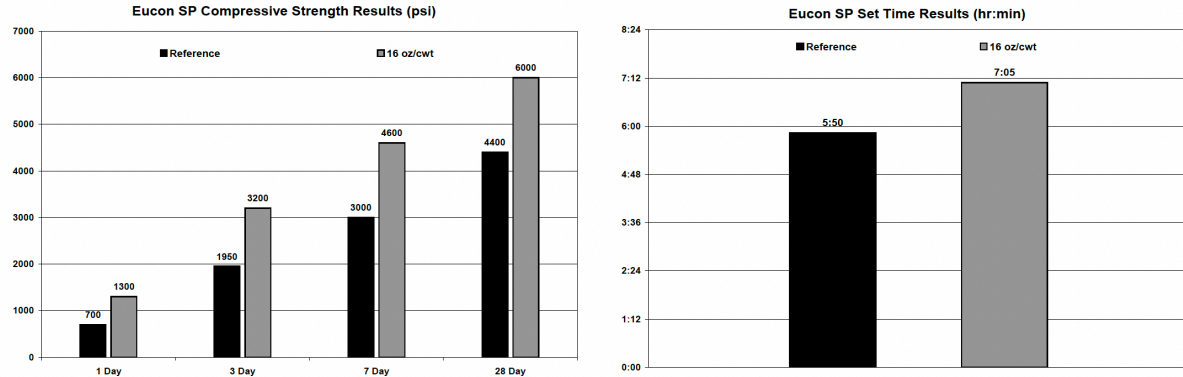
PRECAUTIONS/LIMITATIONS

- Care should be taken to maintain EUCON SP above freezing; however, freezing and subsequent thawing will not harm the material if thoroughly agitated. Do not agitate with air or an air lance.
- If re-dosing EUCON SP at the job site, it is recommended that the air content of the concrete mix is checked to conform to job specifications.
- Add to mix independent of other admixtures.
- In all cases, consult the Safety Data Sheet before use.

TECHNICAL INFORMATION

PERFORMANCE DATA

The following test results were achieved using typical ASTM C 494 mix design requirements, 517 lb/yd³ (307 kg/m³) cement content and similar (± 0.5)% air content. These results were obtained under laboratory conditions with materials and mix designs meeting the specifications of ASTM C 494. Changes in materials and mix designs can affect the dosage response of EUCON SP.



DIRECTIONS FOR USE

EUCON SP can be added to the initial batch water or directly on the freshly batched concrete and mixed for approximately 5 minutes or 70 revolutions. However, better results have been observed batching directly on the freshly batched concrete. It should not come into contact with dry cement or other admixtures until mixed thoroughly with the concrete batch.

EUCON SP is typically used at dosages of 6 to 18 oz per 100 lbs (390 to 1170 mL per 100 kg) of cementitious material. Other dosages are acceptable with prior testing and confirmation of the desired performance with specific materials being used.

For any concrete application including Self-Consolidating Concrete (SCC), the dosage of EUCON SP will vary depending on the mix design, local materials, and individual needs of the concrete producer. Trial mixes should be run to verify plastic and hardened performance with local materials. If the material gradations are not optimum for SCC, a viscosity modifier may be used to improve the quality of the mix. Please consult a local Euclid Chemical Sales Professional for trial mixtures and dosage recommendations.

EUCON SP is compatible with most admixtures including air-entraining agents, accelerators, most water-reducers, retarders, shrinkage reducers, corrosion inhibitors, viscosity modifiers, and microsilica; however, each material should be added to the concrete separately.

Figure 1: Recommended Dosage Eucon SP to achieve flowable concrete (7-9"/ 180 - 230 mm slump)

Initial Slump, inches (mm)	Dosage Range of Eucon SP, oz/cwt (mL/100kg)
4 (100)	8-10 (520-650)
3 (75)	10-12 (650-780)
2 1/2 (65)	12-14 (780-910)
2 (50)	14-16 (910-1040)
1 1/2 (40)	16-18 (1040-1170)

Placement: Concrete treated with EUCON SP may be placed in the same fashion as conventional concrete.

Formwork: Forms for walls or narrow sections must be watertight, strong and have good bracing. During the "flowing period", when the concrete is at a slump of 7" to 9" (178-229 mm), the concrete will exert a higher pressure at the base of the form than conventional concrete. Formwork for slabs is the same as for conventional concrete.

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