



EUCON 537

HIGH RANGE WATER REDUCING RETARDING ADMIXTURE

DESCRIPTION

EUCON 537 is a high range water reducing admixture formulated specifically to extend the working time of flowing concrete at temperatures up to 130°F (54°C). EUCON 537 does not contain calcium chloride or any other ingredients that would promote the corrosion of steel.

PRIMARY APPLICATIONS

- Reinforced concrete
- High strength concrete
- Industrial slabs
- Lightweight concrete
- Prestressed concrete
- Parking structures
- Watertight concrete

FEATURES/BENEFITS

- Produces “flowing” concrete with controlled delay of slump loss and workability.
- Greatly reduces water requirements.
- Reduces segregation and bleeding in the plastic concrete.
- Reduces cracking and permeability of hardened concrete.
- When used to produce “flowing” concrete, significantly reduces concrete placement time and cost.

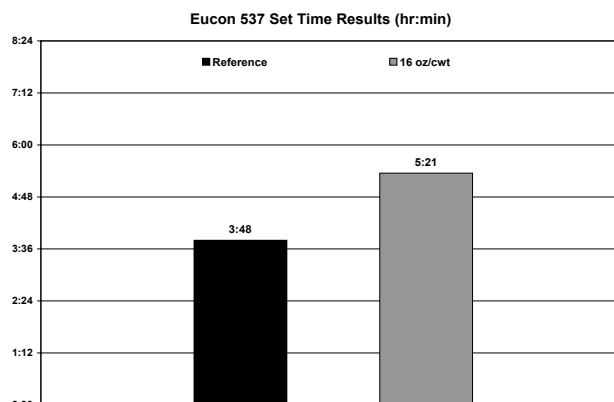
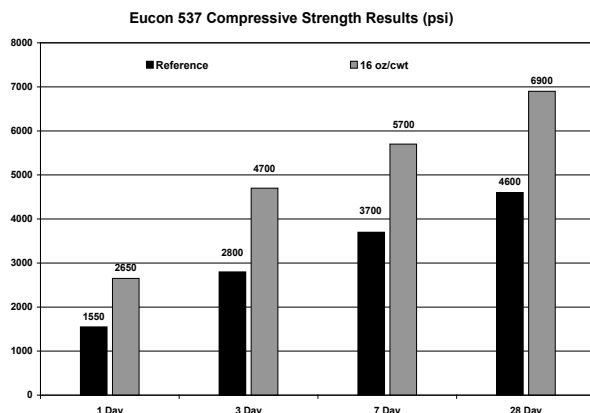
PACKAGING

EUCON 537 is packaged in bulk, 275 gal (1041 L) totes, 55 gal (208 L) drums and 5 gal (18.9 L) pails.

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 537.



SHELF LIFE

2 years in original, unopened container.

SPECIFICATIONS/COMPLIANCES

EUCON 537 meets or exceeds the following requirements:

- ASTM C 494, Type G
- AASHTO M 194

DIRECTIONS FOR USE

EUCON 537 can be added to the initial batch water or directly on the freshly batched concrete. 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.

When designing mixes for use with EUCON 537, ACI 211.1 and ACI 211.2 recommendations should be followed. After the initial mix is established, the sand to coarse aggregate ratio may be adjusted to maintain homogeneity of the “flowing” concrete mix. For “flowing” concrete, charge all concrete materials into the mixer and mix five minutes or 70 revolutions to the initial specified slump. Add EUCON 537 and mix an additional 3 minutes.

EUCON 537 is used at a range of 6 to 32 oz per 100 lbs (390 to 2080 mL per 100 kg) cementitious material depending on the temperature and retention requirements. When EUCON 537 is added, at a rate of 12 oz per 100 lbs (750 mL per 100 kg) cementitious, to a 1” to 3” (25 to 76 mm) slump concrete, it will produce flowable concrete with a slump of 7” to 9” (180 to 230 mm).

The slump loss will be gradual up to six (6) hours at a temperature of 72°F (22°C) and up to three (3) hours at a temperature of 120°F (49°C) when proper quantities of EUCON 537 are used. Variations in slump loss and setting characteristics are a function of the amount of admixture used (See Figure 1), cement characteristics and the mix design selected. An increase in concrete temperature will cause an increase in slump loss and a decrease in initial set time.

Figure 1: RECOMMENDED DOSAGE OF EUCON 537 TO A 3” (76 MM) SLUMP TO ACHIEVE FLOWABLE CONCRETE AT VARYING TEMPERATURES

Temperature, °F (°C)	Dosage Range of Eucon 537, oz/cwt (mL/100 kg)
80 (27)	10 - 16 (650 - 1040)
90 (32)	10 - 18 (650 - 1170)
100 (38)	12 - 20 (780 - 1300)
110 (43)	12 - 24 (780 - 1560)
120 (49)	16 - 32 (1040 - 2090)
130 (54)	20 - 32 (1250 - 2090)

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” (180-230 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.

PRECAUTIONS/LIMITATIONS

- The use of EUCON 537 varies with every application. It is recommended to run trial mixes before use to determine optimal performance of EUCON 537.
- To minimize concrete problems at concrete temperatures higher than 75°F (24°C), or in windy weather, follow recommendations of ACI 305R-10 report, “Hot Weather Concreting.”
- EUCON 537 must be protected from freezing.
- In all cases consult the Safety Data Sheet before use.

Rev. 11.14

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