# THE EUCLID CHEMICAL COMPANY



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# **EUCON 537**

# HIGH RANGE WATER REDUCING RETARDING ADMIXTURE TYPE G

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**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).

#### **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.

#### SPECIFICATIONS / COMPLIANCES

EUCON 537 meets or exceeds the following requirements:

- ASTM C 494, Type G
- AASHTO M-194
- ACI 201 minimal chloride content
- ACI 318 minimal chloride content

#### **PACKAGING**

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

#### **TECHNICAL INFORMATION**

### **Typical Engineering Data**

## **Compressive Strengths vs. Control**

1 day	up to 140%
3 days	140-160%
7 days	130-150%
28 days	125-135%

#### **Relative Durability**

Freeze/Thaw resistance ...... 98.7%

**Shelf life** is 2 years in original, unopened package.

#### **DIRECTIONS FOR USE**

**Quantity** - EUCON 537 is used at a range of 6-14 oz per 100 lb (375-875 per 100 kg) cement. When EUCON 537 is added, at a rate of 12 oz per 100 lb (750 ml per 100 kg) cement, to a 1"-3" (25.4-76.2 mm) slump concrete, it will produce flowable concrete with a slump of 7"-10" (178-254 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, 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.

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.

Suggested Quantities per 100 lb (100 kg) cement to a 3" (76 mm) slump vs. Air Temperatures

80°F(27°C)	10-16 oz (625-1000 ml)
90°F(32°C)	10-18 oz (625-1125 ml)
100°F(38°C)	12-20 oz (750-1250 ml)
110°F(43°C)	12-24 oz (750-1500 ml)
120°F(49°C)	16-32 oz (1000-2000 ml)
130°F(54°C)	20-32 oz (1250-2000 ml)

**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" - 10" (178-254 mm), the concrete will exert a higher pressure at the base of the form than conventional concrete. Form work for slabs is the same as for conventional concrete.

#### **PRECAUTIONS / LIMITATIONS**

- The use of EUCON 537 varies with every application.
   Therefore, The Engineering or Technical Services
   Department of The Euclid Chemical Company should
   be consulted whenever a question on usage or compatibility with other admixtures is raised. Many successful mix designs are on file and can be an excellent reference when preparing a project mix design.
- To minimize concrete problems at concrete temperatures higher than 75°F (24°C), or in windy weather, recommendations of ACI 305-89 report, "Hot Weather Concreting" should be followed.
- EUCON 537 must be protected from freezing.
- · Add to mix independent of other admixtures.

Form Eucon 537-10.00