

# CHEM SUPERPLAST-470

DYNAMIC WATER REDUCING ADMIXTURE

Data Sheet

## **Chem SuperPlast-470**

Dynamic water reducing admixture

### **Description:**

**CHEM SUPERPLAST 470** Superplasticizer is our latest generation of advanced organic polymer dispersants used to modify Portland cement grout or concrete.

**CHEM SUPERPLAST 470** lowers water demand and increases slump without having slump loss associated with other Superplasticizers. **CHEM SUPERPLAST 470** is ideal for use in any concrete where it is desired to keep the water/cement ratio at a minimum and still achieve the degree of workability necessary to ensure easy placement and consolidation.

### **Where to Use:**

Use with Portland cement grout and mortar, where high flow is needed. Bridge decks, parapets, air ports, dams, parking garage decks and on-grade highways are some of the places where **CHEM SUPERPLAST 470** can be used.

- To significantly reduce the water consumption of a concrete mix.
- Improve workability.
- Increase early and ultimate strengths without additional cement.
- Particularly useful for increasing workability of ready-mixed concrete at higher temperatures.
- To reduce concrete permeability, increase water penetration and enhance durability.

### **Benefits:**

Highly efficient, producing high slump concrete at very low dosage with no loss in strength.

- Holds slump for long times without loss with near neutral set time.
- Excellent water reduction.
- High physical strengths.
- Reduces bleeding and segregation.
- Reduced shrinkage and cracks.
- Non-corrosive.
- Use in production of flowing concrete allows easy construction with rapid placing and compaction resulting in superior surface finish.
- Chloride free.
- Increases the strength.

### **Technical Support:**

**CHEMCONS Chemicals** provides a full technical advisory service.

**ASTM C494** as type **A, F** and **G**.

### **Typical Dosage**

Trial mix should be used to maximize the benefits.

The normal dosage range is from 0.80 to 1.80 litres / 100 kg of cementitious material.

For higher workability concrete dosage range should be from 0.50 to 2.00 litre / 100 kg of cementitious material.

### **Use at Other Dosages**

Contact the **CHEMCONS Chemicals** Concrete Service Department for advice in these cases.

### **Properties:**

- **Appearance:** Brown liquid
- **Specific gravity:** Typically 1.155 at 20°C ± 3%
- **Chloride content:** Nil to BS 5075
- **Air entrainment:** Typically less than 3% additional air is entrained at normal dosages.
- **Equivalent/liter of admixture:** A fact sheet on this subject is available.

### **Instructions for Use**

#### **Mixing Patterns:**

Initial trials should be done with normal concrete. After initial trials, minor modifications to the overall water may be made as needed to optimize performance. Use an efficient design of water reducer will improve mix cohesion. The slight air entrainment may also help to minimize bleeding and segregation.

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### **Curing:**

Good curing practice should be maintained especially after an overdose. Water or **CHEM Superplast 470** slurry should be used.

### **Storage:**

Store under shade in direct contact with sunlight and always store in shady areas. At high temperatures, avoid direct sunlight. Keep barrels tightly closed when not in use. Shelf life: 12 months from date of supply if stored under standard conditions.

### **Effects of Overdosing:**

An overdose will result in an increase in retardation. Overdosage may also cause increased air entrainment and delay in curing times.

### **PACKAGING:**

**CHEM Superplast 470** is packaged in bulk, 245kg / 210ltr, 35kg / 30ltr.



#### **FOR YOUR INFORMATION:**

CHEMCONS Construction Chemicals Company is the wide range manufacturer of construction chemicals, including concrete repairing mortars, curing compounds, adhesives, concrete protection coatings, waterproof coatings, heatproof coatings, grouts & Tile Bond.

**Separate Technical Data Sheets are available for these products.**

