

PRODUCTNAME

# Adi-Con® SP 500

## High Range Water Reducing Agent

MANUFACTURER

Gemite® Products Inc.

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FEATURES

- Flow, self-levelling
- Aids in pumping
- High early and ultimate strengths
- Low water-cement ratio- reduction of up to 30%
- High slump life
- High workability with low water content
- Improved concrete durability
- Allows to use less cement
- Improved surfaces
- No chlorides
- Non toxic

PRODUCT DESCRIPTION

Basic Use

Adi-Con SP 500 is a new generation superplasticizers specifically developed to produce high-strength and/or increased slump concrete. It is an effective dispersant, fluidifier and high range water reducing agent (superplasticizer), which produces excellent rheological properties in concrete. Adi-Con SP 500 improves the flow properties of the mix by breaking up cement agglomerates.

Adi-Con SP 500 may be used to increase the mechanical properties of concrete; i.e. compressive and flexural strengths and modulus of elasticity. Adi-Con SP 500 has been designed primarily for precast and ready mix concrete and can be used to achieve the following concrete characteristics:

- Flowing self-levelling
- High early strength
- High workability with low water content
- Low water-to-cement ratio (reduction of up to 35%)
- Reduced cement content
- Very high strength

Adi-Con SP 500 applications include:

- Pumping concrete
- Concrete for underwater use
- Precasting
- Architectural concrete
- Specially shaped concrete slabs

- Silica fume (microsilica) concrete
- Fly ash concrete
- Blast furnace slag cement concrete
- Light-weight concrete
- High performance concrete (HPC)
- Self-compacting concrete (SCC)

Composition and Materials

Adi-Con SP 500 is based on polycarboxylate ether. It is supplied as an opaque liquid.

Health and Safety

Adi-Con SP 500 is a mildly acidic material. May be harmful if swallowed. Avoid contact with eyes and prolonged contact with skin. If contact occurs, flush immediately with water. Seek medical advice if irritation occurs. Harmful if digested. Keep product out of reach of children. FOR INDUSTRIAL USE ONLY. Consult MSDS for additional information. Wash thoroughly after handling. Do not take internally. For more details, see our MSDS.

Color

Opaque

Dosage

Adi-Con SP 500 is dosed at 0.185-1.5 kg per 100 kg of cement. The dosages depend on specific conditions. Please test each concrete mix design.

Packaging

Adi-Con SP 500 is supplied in 20 L pails, 200 L drums and 100 L plastic totes.

Storage and Transportation

Adi-Con SP 500 has a shelf-life of 12 months. The liquid additive must not freeze and must be stored at room temperature above 6°C. Mix the content prior to use.

TECHNICAL DATA

Solids content	38-40%
Chlorides (ppm)	< 1000
pH of 10% solution	5.5-7.5
Density	1.08 g/cc
Ionic nature	anionic
Solubility	soluble in hard and soft water
Viscosity @ 25°C (cps)	150-250
Appearance	Opaque liquid

Adi-Con SP 500 complies with the requirements of CSA CAN3-A266-.6-M85, Superplasticizing admixtures for concrete;

ASTM C-494, Types A and F; US Army Corps of Engineers CRD C- 87, Types A and F; AASHTO M - 194, Types A and F.

### **INSTALLATION**

Current Guide Specification and Application Instructions contain additional information specific to each application and must be followed.

### **Mixing**

For the best results *Adi- Con SP 500* should be added to gether with the last 1/3 of the mixing water. at the concrete plant. Consult Technical Service for mixing details.

### **Application**

*Adi- Con SP 500* fluidified concrete remains work able for approximately one to two hours @ 20°C (68°F). The duration of work ability depends not only on the temperature but also on the type and brand of cement, the nature of the aggregates, the method of mixing and the method of transportation. When *Adi- Con SP 500* is added at normal dosages, it will not significantly affect the concrete's heat of hydration. Superplasticized concrete is placed and finished in the same manner as conventional concrete.

### **AVAILABILITY AND COST**

*Adi- Con SP 500* is available world wide. Contact the manufacturer for the name of the nearest Representative/Distributor and pricing information.

### **MAINTENANCE**

None required.

### **WARRANTY**

A limited twelve (12) month Material Replacement Warranty is available. For complete details contact Gemite's Head Office.

### **TECHNICAL SERVICE**

For advice on suitability of *Adi- Con SP 500* for a specific application, specification assistance and application instructions, contact Technical Service: USA 888-443-6483; Canada 905-672-2020.

### **Short Specification**

The high range water reducing concrete admixture will be polycarboxylate ether based superplasticator *Adi-Con SP 500*, manufactured by Gemite Products Inc., [USA, 888-443-6483] or [Canada, 905-672-2020]. It will meet the all the Technical Data specified in the current *Adi-Con SP 500* Product Data Sheet.