

#### PRODUCT DESCRIPTION

LSR™ readv-to-use liquid admixture is used for making more uniform and predictable quality concrete while retarding its setting time to facilitate placing and finishing operations.

# **PRODUCT FEATURES**

- Improved workability
- Reduced segregation
- Superior finishing characteristics for flatwork and cast surfaces
- Reduced water content required for a given workability
- Retarded setting characteristics
- Moderate to extended retardation depending on the addition rate
- Full-Form deflection can take place (before concrete sets) in extended pours for bridge decks, cantilevers, non-shored structural elements, etc.

#### **PRODUCT USES**

- Pre-stressed concrete
- Precast concrete
- Reinforced concrete
- Shotcrete
- Lightweight concrete
- Pumped concrete
- Pervious concrete
- Self-consolidating concrete (SCC)

### **COMPRESSIVE STRENGTH**

Concrete produced with LSR™ admixture will have rapid strength development after the initial set occurs. It develops higher early (24-hour) and ultimate strengths than plain concrete when used within the recommended dosage range, under normal, comparable curing conditions.

## **HOW TO USE**

# **DOSAGE**

LSR™ admixture is recommended for use at a dosage of 260 ± 65 mL/100 kg of cementitious materials for most concrete mixtures using typical concrete ingredients. Because of variations in the job conditions and concrete materials, dosages other than the recommended amounts may be required. In such cases, contact your local sales representative.

### **RATE OF HARDENING**

The temperature of the concrete mixture and the ambient temperature (forms, earth, reinforcement, air, etc.) affect the hardening rate of concrete. At higher temperatures, concrete hardens more rapidly which may cause problems with placing and finishing. LSR™ admixture retards the set of concrete. Within the normal dosage range, it will generally extend the setting time of concrete containing normal Portland cement approximately 1 to 5 hours compared to that of a plain concrete mixture, depending on job materials and temperatures. Trial mixtures should be made with job materials approximating job conditions to determine the dosage required.



Liquid Form Set Retarding- LSR™

#### SHELF LIFE

LSR™ admixture has a minimum shelf life of 18 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact AFZIR regarding suitability for use and dosage recommendations if the shelf life of LSR™ admixture has been exceeded.

#### **STORAGE**

LSR™ admixture should be stored above freezing temperatures. If LSR™ admixture has frozen, thaw at 2 °C or above and completely reconstitute by mild mechanical agitation. Do not use pressurized air for agitation.

### **PACKAGING**

LSR™ admixture is supplied in 208 L drums, 1040 L totes and by bulk delivery.

## DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.

AFZIR shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory.

The Buyer, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production.