## PRODUCT DESCRIPTION

HWR<sup>™</sup> is a highly effective superplasticizer based on modified synthetic carboxylate polymers specifically designed to produce ready-mix concrete with low water-to- binder ratio (w/b) and excellent workability. It can help the ready-mixed concrete industry, where more than normal slump retention and durability are required. The ability to work over a wide range of w/b, including low w/b, and still obtain extended slump retention allows for the manufacturing of high-quality concrete.

#### **PRODUCT FEATURES**

- High water reducing
- Increased ultimate compressive strength
- . Increased flexural strength
- Increased durability
- Superior slump retention. Ease of delivery to point of placement
- High workability-ease of placing and compaction without segregation
- Good adhesion ease of pumping. No bleeding
- Good workability excellent surface appearance
- Minimal bleed water excellent concrete quality
- High elastic modulus and high strength superior load bearing capacity

# HOW TO USE

#### DOSAGE

www.afzir.com – Concrete Admixtures

Range of dosage rates: from 400 to 1700 ml per 100 kg of cementitious content. Dosage above the recommended values can be employed. Still, the required dosage for a specific job with controlled delay in setting and workability should be determined by in-situ trials Admixture demand varies with w/b of the concrete, cement type, pozzolanic materials and ambient temperature. Trials are to be conducted prior to use in order to determine required performance, including workability retention, setting, and strength development.

#### MIXING

HWR™ should be dispensed after all concrete constituents are charged in the central mixer, preferably after approximately 60% of mixing water addition.

## **APPLICATION**

HWR<sup>™</sup> is recommended for all areas of use of highperformance concrete in the ready-mix industry:

- Super slump retaining concrete with equal or less water content than conventional admixtures.
- Concrete mixtures containing silica fume, GGBS, or PFA
- Concrete with high resistance against aggressive media
- Long distance transport
- Hot weather concreting
- Highly durable concrete
- Mass concrete .
- Pumped concrete
- High strength concrete .
- **Pervious Concrete** .
- Sustainable Concrete





High Range Water Reducing Admixture - HWR™

#### STORAGE

HWR<sup>™</sup> can be stored up to 1 year from manufacturing date, out of direct UV light and protected from extreme temperatures.

# SHELF LIFE

12 months after the production date under appropriate storing conditions. Opened packages can be used throughout the shelf life if the package cover is well closed.

## PACKAGING

HWR<sup>™</sup> is supplied in: 1000 liter containers.

## SAFETY

In case of contact with skin or eyes, rinse thoroughly with water. If irritation persists, seek medical attention.

If swallowed, do not induce vomiting and seek medical attention.

#### 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.