## **TECHNICAL DATA SHEET**

**ZYLA® 610** 

Normal Water Reducing Admixture

### DESCRIPTION

ZYLA® 610 water-reducing admixture is a proprietary formulation incorporating highly purified specialty organic chemicals. ZYLA® 610 promotes more complete hydration of Portland cement and has no effect on concrete air entrainment.

The ZYLA<sup>®</sup> product line of water reducers is specially formulated to have a synergistic effect with polycarboxylate-based mid-range and high-range water reducers that improve flat-work finishability.

This product does not contain intentionally added chloride and as such is essentially chloride free. It is manufactured under rigid controls that provide uniform, predictable performance. ZYLA® 610 is supplied as a light brown, low viscosity liquid and is ready-to-use as received. One gallon weighs approximately 9.1 lbs (1.1 kg/L).

## ADVANTAGES

- No impact on concrete air content
- Better control of water reduction and setting times as compared to traditional lignin-based water reducers
- Synergistic performance of polycarboxylate-based mid-range and high-range water reducers, which includes water reduction, concrete strength and air control
- In the hardened state, improves the compressive and flexural strengths at all ages of concrete versus traditional lignin-based water reducers

## FIELDS OF APPLICATION

ZYLA® 610 is suitable for normal weight and light weight concrete in ready-mix, precast and prestressed applications

# Method of Use

### Dosage

- The admixture shall be delivered as a ready-to-use liquid product and shall require no mixing at the batching plant or job site.
- . The addition rate range of 3 to 5 fl oz/100 lbs (195 to 325 mL/ 100 kg) of cement or cementitious is typical for most applications. However addition rates of 2 to 7 fl oz/100 lbs (130 to 455 mL/100 kg) of cement or cementitious may be used if local testing shows acceptable performance. Pretesting is required to determine the appropriate addition rate for desired performance. The optimum addition rate depends on the other concrete mixture components, job conditions and desired performance characteristics.

### **Additional Usage Recommandations**

- ZYLA® 610 is used to produce concrete mixes with lower water content (typically 3% to 10% reduction), greater plasticity and higher compressive strengths. ZYLA® 610 is suitable for normal weight and light weight concrete in ready-mix, precast and prestressed applications.
- The unique chemistry of ZYLA<sup>®</sup> 610 positively impacts the finishability of concrete by providing a creamier and more homogenous texture, with more uniform bleed rate relative to traditional lignin-based water reducers. The influence of ZYLA® 610 on the finishability of lean mixes has been particularly noticeable. Floating and troweling, by machine or hand, imparts a smooth, close tolerance surface.

#### Equipment

- A complete line of accurate, automatic dispensing equipment is available. ZYLA® 610 may be introduced to the concrete mix through the

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Normal Water Reducing Admixture

Chryso Concrete

Solutions

water holding tank discharge line. The ZYLA® product line is formulated to be free of sediment.

#### **Complimentary Products**

- ZYLA® 610 is compatible with most admixtures as long as they are added separately to the concrete mix, usually through the water holding tank discharge line. In general, it is recommended that ZYLA® 610 be added to the concrete mix near the end of the batch sequence for optimum performance. Different sequencing may be used if local testing shows better performance. Please see <u>Technical Bulletin TB-0110</u>, *Admixture Dispenser Discharge Line Location and Sequencing for Concrete Batching Operations* for further recommendations.
- Pretesting of the concrete mix should be performed before use, as conditions and materials change in order to assure compatibility, and to
  optimize dosage rates, addition times in the batch sequencing and concrete performance. For concrete that requires air entrainment, the
  use of an ASTM C260 air-entraining agent (such as Daravair<sup>®</sup> or Darex<sup>®</sup> product lines) is recommended to provide suitable air void
  parameters for freeze-thaw resistance.

# CHARACTERISTICS

Product Nature	Liquid
Color	Brown
Shelf life	9 months
CI <sup>-</sup> lons content	< 0,100 %
Specific gravity (25°C) in g/ml	1,105
pH (25°C)	9,80

### PRECAUTIONS

 ZYLA<sup>®</sup> 610 will freeze at about 23.7°F (-4.6°C), but will be completely uniform after thawing and thorough agitation.

### SAFETY

Prior to any use, please read carefully the Safety data Sheet.

# PACKAGING

- Bulk
- 275 gallon tote
- 55 gallon drum

# **ADDITIONAL CERTIFICATIONS & MARKINGS**

- ZYLA<sup>®</sup> 610 shall not contain calcium chloride as a functional ingredient.
- ZYLA<sup>®</sup> 610 will not promote corrosion of reinforcing steel embedded in concrete.
- It shall be used in strict accordance with the manufacturers' recommendations.
- The admixture shall comply with ASTM Designation C494, Type A water reducing and Type D water reducing and retarding admixtures.
- Certification of compliance shall be made available on request

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