

Description

Glenium 7700 ready-to-use high-range water-reducing admixture is based on the next generation of polycarboxylate technology found in all of the Glenium 7000 series products. This technology combines state-of-the-art molecular design with a precise understanding of regional cements to provide specific and exceptional value to all phases of the concrete construction process.

Glenium 7700 is particularly effective in improving the day to day consistency of concrete mixtures. This is accomplished by providing unparalleled slump retention without compromising early compressive strength development and setting time. Workability retention helps to maintain more consistent performance from batch to batch, thereby improving operational efficiencies. Glenium 7700 meets ASTM C 494 provisional compliance requirements for Type A, water-reducing, and Type F, high-range water-reducing, admixtures.

Applications

Recommended for use in:

- Concrete requiring high-early compressive strength development
- Applications requiring workability retention without retardation
- Concrete where high flowability, increased stability and durability are needed
- Production of Self-Consolidating Concrete (SCC) mixtures
- Concrete with varying water reduction requirements (5-40%)

Glenium® 7700

High-Range Water-Reducing Admixture

Features

- Superior slump retention
- Excellent early strength development
- High ultimate strengths
- Optimum setting time
- Consistent air entrainment
- Dosage flexibility

Benefits

- Consistency in placement operations
- Optimized mixture costs
- Reduction in patching costs
- Ability to attain difficult combinations of high-early and late-age compressive strengths
- Increased productivity
- Improved operational efficiencies
- Less QC support
- Fewer rejected loads
- Faster form turnover
- Workability retention without retardation

Performance Characteristics

Slump Retention: Concrete produced with Glenium 7700 admixture maintains slump significantly longer than concrete mixtures containing naphthalene, melamine, and first generation polycarboxylate high-range water-reducing admixtures. This slump retention is achieved without affecting rate of hardening or early age compressive strength development.

Mixture Data: Figure 1 represents average slump retention performance across multiple field trials throughout North America. Figure 2 represents average compressive strength results from these same field trials. Materials were all different as were starting consistencies. The reference admixture in this graph represents the first generation of high-early strength polycarboxylate technology.

Product Data: Glenium® 7700

Figure 1. Average Slump Retention Performance

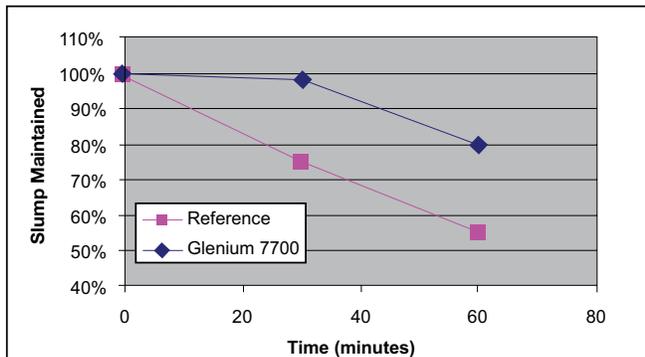
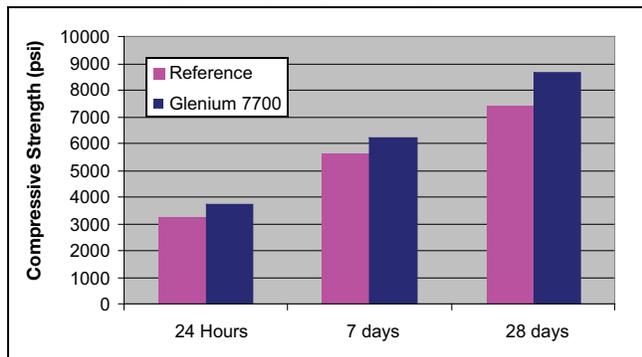


Figure 2. Average Compressive Strength Results



Guidelines for Use

Dosage: Glenium 7700 has a recommended dosage range of 4-15 fl oz/cwt (260-975 mL/100 kg) of cementitious materials. For most applications, dosages in the range of 4-12 fl oz/cwt (260-780 mL/100 kg) will provide excellent performance. For very high performance and Rheodynamic® Self-Consolidating concrete mixtures, up to 15 fl oz/cwt (975 mL/100 kg) of cementitious materials can be utilized. Because of variations in concrete materials, job site conditions and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local sales representative.

Mixing: Glenium 7700 admixture can be added with the initial batch water or as a delayed addition. However, optimum water reduction is generally obtained with a delayed addition.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: Glenium 7700 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressing steel or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of Glenium 7700 admixture.

Compatibility: Glenium 7700 admixture is compatible with most admixtures used in the production of quality concrete, including normal, mid-range and high-range water-reducing admixtures, accelerators, retarders, extended set control admixtures, air-entrainers, corrosion inhibitors, and shrinkage reducers.

Do not use Glenium 7700 admixture with admixtures containing beta-naphthalene sulfonate. Erratic behaviors in slump, workability retention and pumpability may be experienced.

Storage and Handling

Storage Temperature: Glenium 7700 admixture must be stored at temperatures above 40 °F (5 °C). If Glenium 7700 admixture freezes, thaw and reconstitute by mechanical agitation. **Do not use pressurized air for agitation without consulting technical support.**

Shelf Life: Glenium 7700 admixture has a minimum shelf life of 6 months. Depending on storage conditions, the shelf life may be greater than stated. To ensure the longest shelf life potential, recirculation is recommended. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of Glenium 7700 admixture has been exceeded.

Packaging

Glenium 7700 admixture is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

Related Documents

Material Safety Data Sheets: Glenium 7700 admixture

Additional Information

For additional information on Glenium 7700 admixture or its use in developing concrete mixtures with special performance characteristics, contact your local sales representative.

The Admixture Systems business of BASF Construction Chemicals is a leading provider of innovative admixtures for specialty concrete used in the ready mix, precast, manufactured concrete products, underground construction and paving markets throughout the NAFTA region. The Company's respected Master Builders brand products are used to improve the placing, pumping, finishing, appearance and performance characteristics of concrete.

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