



1.04 FAST SUPER PLAST 444

Normal and High Range Water Reducer

PRODUCT DESCRIPTION

FAST SP 444 is a new generation super-plasticizer based on lingo-sulphonate technology. This product is designed to provide normal to high water reduction, while providing excellent flow ability during placement, and excellent slump retention without affecting initial setting time. This product incorporates the latest state of the art technology in high performance concrete. FAST SP 444 was designed to produce super high-strength concrete, flow able and self-consolidating concrete in a variety of applications. FAST SP 44 is also well suited for horizontal work.

BENEFITS

- Provides a linear dose response to provide desired water reductions. It is recommended for ready-mix for both structural and architectural applications.
- Provides a linear response to allow high levels of water reduction as well as maintaining the level of workability for longer periods of time versus conventional super plasticizers.
- Concrete mixes produced can exhibit a cohesive and non-segregating concrete.
- Can reduce the overall production cost, especially when used with FastChem self-consolidating concrete technology.
- More efficient pumping of concrete with pump pressures reduced as much as 50%.
- Reduced discharge and turn-around time for trucks.
- Improves impermeability to reduce sulfate attack.
- Increased productivity, resulting in reduced labor costs.

- Faster reuse of forms.
- Increased strengths at all ages.

RECOMMENDATIONS

FAST SP 444 is recommended for use in all types of concrete including plain, reinforced, flow able and self-consolidating concrete. FAST SP 444 is very effective in concrete containing pozzolanic materials such as fly ash, silica fume and slag.

Physical & Chemical Properties

- Appearance: Dark Brown Liquid
- Specific gravity: 1.150 @20°C
- Chloride contents: Nil
- Air Entrainment: Less than 2%
- PH: 7-8

DOSAGE

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Recommended dosage range for FAST SP 44 is 22.3 to 48 ounces per 220.5 pounds (800 mls to 1800 mls per 100 Kg) of cementitious material to meet ASTM Type A & G requirements. FAST SP 44 has a linear-dosage response so the dosage amount can be precisely tailored to the degree of water reduction or slump characteristics required for the application. For very high strength applications, the dosage can be increased up to 52.72 ounces per 220.5 pounds (1500 mls per 100 Kg) of cementitious material. Because of the variability in cements, field conditions, and other ingredients in the mix, it is highly recommended that trial mixes be prepared to determine the optimum dosage for your specific performance requirements.



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DIRECTIONS FOR USE

For optimum results, introduce FAST SP 444 towards the end of the mixing process. FAST SP 444 maintains its super plasticized consistency for up to 90 minutes depending on the dosage and environmental conditions. Factors to consider are ambient temperature, transport distance, and jobsite delays. FAST SP 444 can be used in conjunction with and is compatible with all of FastChem's non-chloride accelerators. Combining FAST SP 444 with any other admixture containing Naphthalene Sulfonates such as Catexol 1000 SP-MN, may result in a rapid slump loss. Mixing and transporting equipment should be thoroughly washed between subsequent batches of concrete containing Naphthalene Sulfonates and FAST SP 444.

APPLICABLE STANDARDS

FAST SP 44 meets or exceeds ASTM C-494; Types A & G. FAST SP 444 does not contain calcium chloride.

-AASHTO M-194.

-ACI- 201 minimum chloride content.

PACKAGING

FAST SP 444 is supplied in either 55 gallon drums (210 liter) or delivered in bulk. FAST SP 444 should be kept above 5°C (40°F). If accidentally frozen, its properties can be restored by thawing and thoroughly re-mixing by mild mechanical agitation.

TECHNICAL SERVICE

A trained FastChem representative is available to assist in the preparation of specifications, and the resolution of concrete problems in the field.

WARRANTY

This product is warranted to be free of defects in material and workmanship, and conform to FastChem Construction Chemicals ("FastChem") quality control standards. All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose. Satisfactory results depend upon many factors beyond FastChem's control. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from his or her direct use, indirect use or consequential to their use of the product. FastChem shall not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. FastChem's sole responsibility shall be to replace that portion of the product which proves to be defective. Any warranty claim must be made within six (6) months from the date of the claimed breach. This limited warranty applies only if the product was properly installed and used according to all instructions and was properly stored prior to use.

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