



# 1.04 XPERT SUPER PLAST 515

## Normal and High Range Water Reducer

### PRODUCT DESCRIPTION

XPERT SP 515 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. XPERT SP 515 was designed to produce super high-strength concrete, flow able and self-consolidating concrete in a variety of applications. XPERT SP 515 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 fast 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.

### DIRECTIONS FOR USE

For optimum results, introduce XPERT SP 515 towards the end of the mixing process. XPERT SP 515 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. XPERT SP 515 can be used in conjunction with and is compatible with all XPERT's non-chloride accelerators. Combining XPERT SP 515 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 XPERT SP 515.

### APPLICABLE STANDARDS

- XPERT SP 515 meets or exceeds ASTM C-494;Types A & G. XPERT SP 515 does not contain calcium chloride.
- AASHTO M-194.
  - ACI- 201 minimum chloride content.

### DOSAGE

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Recommended dosage range for XPERT SP 515 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. XPERT SP 515 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.

### CHARACTERISTICS

CATEGORY	PARAMETERS
Specific Gravity	1.150 @ 20°C
Appearance	Dark brown liquid
Chlorides	Nil
Air Percentage	Less than 2%
PH	7 - 8

### RECOMMENDATIONS

XPERT SP 515 is recommended for use in all types of concrete including plain, reinforced, flow able and self-consolidating concrete. XPERT SP 515 is very effective in concrete containing pozzolanic materials such as fly ash, silica fume and slag.

### PACKAGING

XPERT SP 515 is supplied in either 55-gallon drums (210 liter) or delivered in bulk. XPERT SP 515 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 XPERT representative is available to assist in the preparation of specifications, and the resolution of concrete problems in the field.