



## 1.21 XPERT SP 905

High-Performance, High Workability Slump Retaining Water Reducing Super Plasticizer

### PRODUCT DESCRIPTION

XPERT SP 905 is a new generation super plasticizer based on naphthalene sulphonate based 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 905 was designed to provide extended slump retention for super high-strength concrete, flow able and self-consolidating concrete in a variety of applications.

### 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 superplasticizers.
- Concrete mixes produced can exhibit a cohesive and non-segregating concrete.
- Can reduce the overall production cost, especially when used with XPERT's 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

XPERT SP 905 is recommended for use in all types of concrete including plain, reinforced, flow able and self-consolidating concrete. XPERT SP 905 is very effective in concrete containing pozzolanic and materials such as fly ash, silica fume and slag.

### APPLICABLE STANDARDS

XPERT SP 905 meets or exceeds ASTM C-494, Types A; F & G. XPERT SP 905 does not contain calcium chloride.

### PACKAGING

XPERT SP 905 is supplied in either 55-gallon drums (210 liter) or delivered in bulk. XPERT SP 905 should be kept from freezing. If accidentally frozen, its properties can be restored by thawing and thoroughly re-mixing by mild mechanical agitation.

### DOSAGE

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Recommended dosage range for XPERT SP 905 is 33.8 to 67 ounces per 220.5 pounds (800 mls to 2000 mls per 100 Kg) of cementitious material to meet ASTM Type A, F&G. XPERT SP 905 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 87 ounces per 220.5 pounds (2500 mls per 100 Kg) of cementitious material. Because of the variability increments, 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.

### DIRECTIONS FOR USE

For optimum results, introduce XPERT SP 905 towards the end of the mixing process. XPERT SP 905 maintains its super plasticized consistency for up to 120 minutes depending on the dosage and environmental conditions. XPERT SP 905 Factors to consider are ambient temperature, transport distance, and jobsite delays. XPERT SP 905 can be used in conjunction with and is compatible with all of XPERT's non-chloride accelerators.

### CHARACTERISTICS

CATEGORY	PARAMETERS
Specific Gravity	1.20 @ 20°C ± 0.005 (BSEN 934-2)
Water soluble chloride	Nil
Shelf Life	1 year in original, unopened package.
Alkali Content	Typically, less than 5 mg. Na <sub>2</sub> O equivalent / liter of admixture.