

# **RUSSTECH<sup>®</sup>**

## **RUSSTECH LIQUISHIELD**

### ***SUPERIOR INTEGRAL WATER REPELLANT ADMIXTURE***

#### **DESCRIPTION:**

**RUSSTECH LIQUISHIELD** is a unique multi-component, liquid water repellent admixture based on the newest technology that exhibits superior water shielding performance versus conventional water repellents.

**RUSSTECH LIQUISHIELD** provides long-lasting protection from water penetration by reacting to form a highly effective water-resistant network throughout the concrete matrix.

**RUSSTECH LIQUISHIELD**, when incorporated into a well-designed and air-entrained concrete mix will make the concrete more resistant to freeze-thaw and deicing chemicals.

#### **APPLICATIONS:**

**RUSSTECH LIQUISHIELD** is an integral water-repellant admixture system for use in:

- Precast Concrete
- Wet cast field placed concrete
- Decorative and integrally colored concrete

#### **ADVANTAGES:**

- Less maintenance and moisture damage due to integral water repellency
- Inhibits water transmission through hardened concrete while still allowing proper moisture vapor transmission
- Improves color trueness and consistency of decorative concrete
- Helps improve concrete appearance
- Helps reduce mildew and mold growth
- Makes concrete more resistant to deicing chemicals
- Makes concrete more freeze thaw resistant
- Helps reduce efflorescence

#### **DOSAGE RATE:**

**RUSSTECH LIQUISHIELD** is recommended for use at the following dosage range: 4 -10 ozs. /cwt.- (265 - 661 ml/100kg)

**RUSSTECH LIQUISHIELD** should be added at the end of the batching sequence or at least after initial wetting of the aggregates and cement and after a minimum of 75% of the total mix water has been added to the mix. Always ensure that **RUSSTECH LIQUISHIELD** only comes into contact with the batched concrete and not directly with the mix head or tail water. Once added to the mix, allow a minimum of 90 seconds mix time to insure **RUSSTECH LIQUISHIELD** has been properly dispersed throughout the mix. Consideration should be taken during trial mixing to ensure proper slump and desired air contents are achieved after the addition of **RUSSTECH LIQUISHIELD**.

#### **COMPATIBILITY:**

**RUSSTECH LIQUISHIELD** is fully effective and compatible in all concrete containing all types of Portland cement, class C and F fly ash, silica fume, fibers, and approved water-reducing, accelerating and retarding admixtures.

**RUSSTECH LIQUISHIELD** can be used in white, colored, and architectural concrete.

Because local job conditions vary and optimum dosages need to be determined, contact your local RussTech technical service representative for further assistance to ensure proper **RUSSTECH LIQUISHIELD** water repellent system performance.

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**ADMIXTURES**

## **PRECAUTIONS:**

**RUSSTECH LIQUISHIELD** will not correct building design flaws, out of specification materials, mix proportion errors, incorrect manufacturing procedures, or unorthodox construction practices. Proper manufacturing procedures, mixing, and proportioning of mixes must be incorporated. Ideal concrete mixes will have a maximum water-cementitious ratio of 0.45 and a minimum design strength of 4500 psi. Curing of concrete designed with **RUSSTECH LIQUISHIELD** is not required to gain ultimate strength.

## **TECHNICAL NOTE:**

Efflorescence occurs when excess calcium salts become soluble again from moisture in the environment around the concrete or masonry unit. External sources of moisture can be humidity, rainfall, condensation, or snow etc. When these salts become soluble, they migrate to the surface during the evaporation process, consequently, staining the surface.

**RUSSTECH LIQUISHIELD** effectively reduces moisture from penetrating the surface and may be helpful in stopping salts from becoming soluble and migrating to the surface.

## **TREATMENT OF CONCRETE SURFACE:**

**RUSSTECH LIQUISHIELD** effectively reduces water-based materials from penetrating the concrete surface. Any topical treatments used on the surface of concrete treated with **RUSSTECH LIQUISHIELD** should be evaluated prior to use. It is recommended that solvent-based, VOC compliant compounds be applied to the concrete surface of slabs treated with **RUSSTECH LIQUISHIELD**.

## **STORAGE:**

**RUSSTECH LIQUISHIELD** will not freeze at temperatures above 32 F (0 C).

**RUSSTECH LIQUISHIELD** should be stored in sealed containers where temperatures do not exceed 105 F (40 C).

## **PACKAGING:**

5-gallon pails, 55-gallon drums and 275-gallon totes.

## **SHELF LIFE:**

18 months in the original unopened container.

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**RussTech Inc.**

“We Add The Difference”