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# ***RUSSTECHNICAL NOTES***

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## ***CURE & SEAL APPLICATION PROCEDURES***

### **WHAT IS CURING?:**

Concrete curing is the satisfactory maintenance of adequate moisture around and in newly placed concrete. Curing compound, *applied immediately following placement*, allows concrete to develop the necessary desired strength and durability. Concrete exposed to the elements is especially sensitive to improper curing because the strength development can be significantly reduced from excessive surface evaporation and exposure to freezing.

### **WHAT IS SEALING?:**

Concrete sealers are used on concrete to close up the pores in the concrete surface so it will resist water, de-icing salts, and other aggressive chemicals. Sealers are often used to prevent soiling, resist staining, facilitate the ease of cleaning, brighten concrete colors and exposed aggregates, and produce a water resistant surface. Sealers may also be used to dustproof concrete surfaces. Superior quality sealers usually consist of pure forms of acrylic resin that are non-styrenated and non-yellowing. Quality concrete sealers will last three to five years and require minimal maintenance.

**SILICASEAL-W** is a high quality, effective penetrating concrete sealer, supplied by **RUSSTECH ADMIXTURES**.

### **CURE & SEAL:**

**CURE & SEAL** takes the properties of both a curing compound and membrane forming sealer and combines them to yield the best performance properties of both. Where normal curing resins last only weeks before they wear off, a **CURE & SEAL** will last one to two years. It forms a hard, shiny durable surface that resists all waterborne contaminants and protects the concrete through its infancy and early life, when applied properly.

### **PRODUCTS:**

**RUSSTECH ADMIXTURES** supplies a variety of high quality acrylic **CURE & SEAL** products that include:

- **CURE & SEAL 250**
- **CURE & SEAL 300**
- **CRETESEAL 30**
- **STAMPSEAL 30**

**CURE & SEAL 250** is a revolutionary breakthrough in curing & sealing products because it contains 25% solids and can be sprayed easily through an ordinary sprayer.

**STAMPSEAL 30** is a clear sealer that contains a unique resin and solvent formulation designed to provide maximum penetration into the concrete. It makes colors brighter, surfaces more glossy, and reduces fading (resulting from weather exposure) of decorative concrete surfaces while creating a hard and long lasting protective barrier over the concrete surface. It is a non-styrenated, pure acrylic. This makes it non-yellowing and highly resistant to oil, grease, acid, de-icing salts, UV rays, wet and dry abrasion, and most household chemicals. **STAMPSEAL 30** is specially formulated for stamped and decorative concrete but will work for all concrete applications and surfaces.

### **SURFACE PREPARATION:**

**New concrete:** Surfaces are ready for application of **CURE & SEAL** when surface water glazing or sheen has disappeared and final finishing operations have been completed. Exposed aggregate surfaces should be thoroughly cleaned and dry before application. Older exposed aggregate surfaces may require a light muriatic acid wash to brighten the surface prior to application of a **CURE & SEAL**.

**Old concrete:** Surfaces must be free of oil, dirt, wax and/or other foreign material. Oil and petroleum stains must be removed. Surface imperfections will be magnified by applications of **CURE & SEAL**. Surfaces should be pressure washed to completely degrease and clean surface. Concrete must be completely dry (*allow to dry for approximately 24 hours*) before applying **CURE & SEAL**.

### **APPLICATION PROCEDURES:**

**CURE & SEAL** should *not* be applied when ambient and concrete temperatures are below 40 F. Two light coats are always more effective and dry quicker than one heavy coat.

**Fresh Concrete:** Apply with an industrial airless sprayer, lambs wool applicator or short nap roller, *immediately after all surface water glazing or sheen has disappeared*. Apply **CURE & SEAL** uniformly from drum or pail. Do not dilute or puddle. If applying two coats, allow 6 - 8 hours dry time between coats.

**Old Concrete:** When surface is completely dry (*allow to dry for approximately 24 hours*), apply two uniform coats of **CURE & SEAL** with industrial airless sprayer, lambs wool applicator or short nap roller. Allow 6 - 8 hours dry time between coats.

**Precautions:** Always use **CURE & SEAL** with adequate ventilation. Avoid breathing vapors. Wear protective gloves and goggles. Do not apply in the presence of people or food. People and food may be returned to treated area when there are no longer any odors present.

**Flammable:** Keep product along with empty drums, pails and cans away from heat or open flame.

**Clean Up:** Use **RussSolve 100** or Xylene to clean application equipment.

### **PRODUCT COMPATIBILITY:**

**CURE & SEAL** products can be recoated with the *same* product after proper surface preparation. If recoating with a *different* product or brand, the old coating must be removed before application.

**STAMPSEAL 30** is *not* compatible with other products; therefore all old **CURE & SEAL** must be removed before application.

All **CURE & SEAL** products *can* be applied over **SILICASEAL-W**.

**SILICASEAL-W**, penetrating sealer, *should not be applied over CURE & SEAL* or any other resinous coatings as it will not penetrate into the concrete properly. **SILICASEAL-W** should not be used on stamped concrete.

### **ASTM C 1315 & ASTM C 309:**

**ASTM C 309** is the old standard for curing concrete. Products were required to have a minimum solids content and pass **ASTM C 156** for water retention in concrete. In September of 1998 the EPA implemented new, more strict allowances for solvent (V.O.C. compounds) in products used for both curing and sealing. **ASTM C 1315** is the new standard established for **CURE & SEAL** products and states that the minimum solids content must be 25%.

**SILICASEAL-W** is a water-based product and does not contain solvent. All RussTech products comply with the latest regulations established by the EPA.

### **DRIVEWAY PROTECTION:**

For the most effective surface protection against scaling concrete surfaces on new or old driveways, apply 1 coat of **SILICASEAL-W**, (24 hours after placement of new driveways) followed by 2 coats of **CURE & SEAL**. This system thoroughly protects the driveway surface, resulting in a water resistant concrete that repels de-icing salts, water, and other aggressive chemicals.



**RussTech Inc.**

"We Add The Difference"