

## PERMANENT CONCRETE PROTECTION



## Technical Data

### PRODUCT CHARACTERISTICS

SCP 743 is a spray-applied treatment that is specifically engineered to penetrate into the capillaries and pores of low permeability reinforced concrete structures to condition the concrete and to improve pH to help protect embedded reinforcing steel.

SCP 743 is a one-time application that increases durability and provides permanent protection, reducing recurring maintenance saving time and money.

Concrete remediation practices are enhanced with SCP 743 application as it forms a gel structure within the concrete capillaries and pores to waterproof the concrete. Treated concrete has been tested to withstand over 250-feet of Head Pressure (75-meters). Depending on the mix design, SCP 743 can purge and/or encapsulate contaminants within the concrete capillary and pore structure, effectively removing their contribution to reinforced concrete distress.

SCP 743 technology addresses concrete durability issues such as de-icing chemical and freeze-thaw damage, concrete contamination, concrete permeability, moisture migration, concrete carbonation, and alkali-aggregate reactivity. SCP 743 also locks in free alkali to mitigate efflorescence.

Non-flammable with zero VOCs, Spray-Lock Concrete Protection<sup>®</sup> Technology is unique with over 35-years proven performance.

### INSTALLATION ADVANTAGES

- Allows foot traffic in as little as 1-hour for most flatwork. Up to 3-hours for really dense concrete and/or extremely high moisture conditions
- Ready to accept coatings and/or coverings in as little as 24-hours on existing concrete
- Can purge and/or encapsulate contaminants in concrete
- 0.0 g/ml VOC content
- Water-based
- Non-flammable
- Non-toxic
- Odorless

### PRODUCT BENEFITS

- Waterproofs concrete matrix permanently
- Protects embedded reinforcing steel
- Rejuvenates concrete capillary & pore structure
- Ready to accept all coatings & coverings
- Improves resistance to chemical & environmental attack
- Permanent protection
- Access slabs in as little as 1-hour
- Increases durability
- Minimizes mold & mildew
- Saves time & money
- Non-flammable
- Zero VOC
- Easy to apply
- Safe to apply

**Description:** SCP 743 is a spray-applied, penetrating Portland cement concrete treatment. It provides benefits that include: waterproofing; densification, and surface hardening, resistance to salt and chemical attack, freeze-thaw damage and reinforcing steel corrosion.

**Where to use:** SCP 743 may be applied on any Portland cement concrete element that requires superior protection. These include, but are not limited to: • Precast Structures • Parking Decks & Ramps • Bridge Substructures & Superstructures • Mechanical Rooms • Roof Decks • Architectural Concrete • Below grade walls and slabs

**Packaging & Storage:** SCP 743 is packaged in 5-gallon pails, 20-liter pails and 330-gallon totes. Product shall ideally be stored in a location that is dry and between 35 °F to 100 °F (2 °C to 38 °C) ambient temperature. Optimal storage is at the middle of the temperature range. Protect from freezing. 5-year shelf life under proper storage conditions.

**Surface Preparation:** 1. Do not apply on frozen substrate or when temperature can fall below 32 °F within 24 hours of application. 2. Curing membranes, wax, paint or foreign deposits of any kind restricting access to concrete's internal pore structure must be mechanically removed for SCP 743 to penetrate (i.e. - surface grinding, shot blasting, bush hammering, etc.). 3. Test porosity by applying a few drops of clean water on the surface. Water should absorb within 1½ - 3 minutes. If unsure, contact SCP representative for guidance. 4. Sweep and/or vacuum the surface thoroughly prior to application. *Note: It is very important to contact SCP for job specific advice regarding correct application before commencing use of this product.*

## Application:

1. Use a low to medium pressure sprayer complete with an extension wand and 0.019 - 0.031 inch (0.48-0.79 mm) fan tip spray jet. Hold wand and spray 6 inches (15cm) from the surface of the substrate at a 90° angle.

**IMPORTANT:** Product MUST be applied using an overlapping spray pattern of 50% on the previous run.

2. For slab applications, product should hold a flooded appearance (swimming pool effect) for approximately 15 minutes. There are inherent variations in concrete density; some areas will absorb faster than others. Any area that absorbs product faster than 15 minutes will need to be reapplied until the product no longer absorbs faster than 15 minutes. This is called spraying to the "point of rejection."

- If an area is re-applied more than 3 times, contact the SCP technical department for additional information.
- If product has absorbed thoroughly in the majority of the area, but there is pooling in the low areas, use a broom to spread additional product into the areas already penetrated. Do not allow product to dry in pools. Remove excess with a damp mop.
- After liquid absorption, treated area can be opened to foot traffic.
- In the event of product drying on the surface, lightly and quickly sand the entire surface to remove any of the dried product. Remove dust with broom or vacuum.
- Process is complete.

3. For vertical and overhead applications, work from lowest to highest elevation. Very light and repeated spray passes should be made on the same area until the concrete surface no longer accepts product. Move onto next area after achieving "point of rejection." Please contact your nearest SCP representative for additional technical support and/or training.

### NOTES:

- Use of a dust mask or screen while applying the product is recommended.
- SCP 743 may be used as a superior curing medium for patches on existing concrete. Apply to newly placed and finished concrete as soon as it is hard enough for foot traffic or upon form removal. If placing on concrete after form removal, ensure that there are no form release oils or membranes on the concrete surface that could impede the penetration of SCP 743. Do not allow excess product to dry on the surface before leaving the site. Remove any excess by brooming.
- Areas of high porosity have a faster absorption rate and may dry immediately after spraying. It is important that the product is applied to achieve surface saturation. For slabs, it should appear as total flooding (swimming pool effect) over the entire surface with a thickness of approximately 1/16 - inch (1.5mm). Frequently check coverage rates. Surface saturation should hold that appearance for approximately 15 minutes. If absorption continues to be excessive, contact the SCP representative.
- If applying coatings and/or coverings, wait a minimum of 24-hours from the time of final application of SCP 743 for existing concrete or until new concrete is fit for service. Then lightly sand and thoroughly vacuum the surface to remove any contaminants that may be on the surface. Do not flush with water as mechanical removal allows faster access to the surface.
- Like fresh concrete itself and other alkaline materials, SCP 743 may etch glass, shiny aluminum and brass if left to dry on the surface. Simply remove while wet.
- If considering application of this product over precast concrete products, contact SCP before use as precast concrete products vary widely in porosity and construction.
- Application rates and methods differ when applying overhead and vertically. Contact SCP for additional information.
- DO NOT apply on frozen substrate or when temperature is near freezing.
- DO NOT apply when substrate is 90 °F (32 °C) or higher. If surface temperature is higher than 90 °F (32 °C) then pre-wetting with water is required. Be sure to remove any puddles before applying of SCP.

**General Information:**  
For safe handling information on this product, see the Material Safety Data Sheet (MSDS).

**Storage:**  
Product shall ideally be stored in a location that is dry and between 35 ° to 100 °F (2 ° to 38 °C), ambient temperature. Optimal storage is at the middle of the temperature range. 5-year shelf life under proper storage conditions.

**Warranty:**  
See Spray-Lock Concrete Protection® limited warranty.

## Technical Data:

**Color:** Translucent Blue

**Odor:** None

**Specific Gravity:** 1.10

**pH:** +/- 11.5

**Flammability:** 0 (non flammable)

**Toxicity:** None

REV: B  
DATE: 1/18/17

**VOC/VOS Content:** 0.0 g/ml

**Surface Bond Quality:** 100% of untreated concrete

**Paintability:** 100% of untreated concrete

**Clean-up Solvent:** Water

**Environmental Impact:** None/neutral

**User Status:** Friendly

### Coverage\* Guide SCP 743

140 - 180 ft<sup>2</sup> per 1 gallon

3.5 - 4.5 m<sup>2</sup> per 1 liter

\* Coverage rates are a guide and figures may increase or decrease depending on the porosity of the concrete and spray technique.