

## GARAGE FLOOR SURFACE PREPARATION

**SURFACE PREPARATION** is the key element for long term success. The concrete surface must be prepared properly in order to allow the coating to mechanically bond into the surface of the concrete. The coating must be able to absorb into the concrete to create a strong mechanical bond. Taking the time properly clean and prepare the concrete surface is crucial to a successful SCP20 garage floor installation.

### **SURFACE PREPARATION METHODS:**

Acid etching, sanding and grinding are acceptable preparation methods. These methods are industry standards used in the preparation of concrete for applying coating products. The pictures below illustrate the surface profile. It is important not to create an overly aggressive profile that can telegraph through the coating system.

### **WATER POROSITY TEST:**

Once the concrete surface area is completely prepared, dry and clean, spray a small amount of water on the concrete surface to observe if the water immediately begins to absorb into the concrete, this is called the water drop test. If beading or puddling occurs, additional surface preparation is required. Repeat the surface preparation process again. The concrete surface must be clean and completely dry prior to the application of SCP20 Garage Flooring Products. See the surface preparation check list on page 4.



**ACID ETCHING**



**GRINDING**



### **ACID ETCHING:**

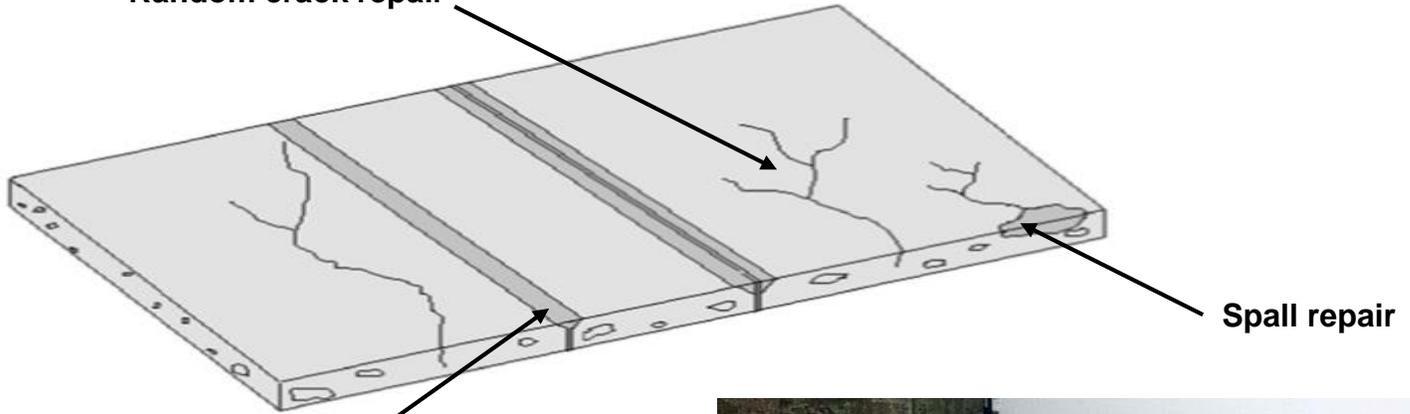
Acid Etching can be used on concrete floors to remove laitance and produce a lightly textured surface but it has some disadvantages. Results can vary, with denser parts of the surface being underprepared. The etched surface has to be flushed with clean water before application of a neutralizing (baking soda) wash to return the PH of the concrete surface to approximately 7, before flushing with clean water again. The surface must then be completely dry prior to applying the SCP20 garage floor system.

## CONCRETE CRACK AND SPALL REPAIR

### CONCRETE CRACK REPAIR:

Cracks in concrete slabs can be repaired with Specguard's **CM2 quick curing concrete mender**. **CM2** is a, low viscosity and high-strength crack repair product. This material has been specially formulated to strongly bond to concrete to fill and repair cracks, and spalls in concrete. **CM2** cures in about 10 minutes and can be used alone or color matched with aggregate to repair crack spalls, and to fill concrete floor control joints. See **CM2** data sheet for complete details. Filling the control joints in the concrete is optional, control joints are designed to crack and may eventually show through the coating systems.

Random crack repair



Filled control joints



Random crack repair

Spall and crack repair



## EXCESSIVE MOISTURE EFFECTS ON CONCRETE FLOORS

### HOW MOISTURE EFFECTS CONCRETE FLOORS AND COATING SYSTEMS:

Moisture vapor transmission in concrete floors is simply liquid water that rises through the pores in the concrete. Moisture already in the concrete and the ground beneath the concrete rises as water vapor through the concrete by a process called diffusion.



**WITHOUT A VAPOR BARRIER** to block moisture from below, the concrete floor is basically an open "sponge" that can cause problems for coatings, adhesives, and flooring materials. If an impermeable coating or flooring material is installed on top of the concrete floor, the moisture will build up below the coating and eventually cause it to blister and delaminate.

### TEST YOUR CONCRETE:

The easiest way to test for moisture in concrete is to duct tape a 2 foot square piece of plastic right to the concrete floor. Only tape the edges, but make sure they are sealed tightly to the concrete floor. Leave the plastic taped to the concrete overnight (24 hours), if there is moisture under the plastic when you peel it off or if the concrete is darker in color, you have moisture in your concrete and it's too wet to install an impermeable flooring material over it. ASTM 4263.



### SOLUTION TO STOP MVT:

**SG1007 CONCRETE VAPOR SEAL** is a non-flammable, non-toxic, non-acid sealer that internally strengthens the concrete and reduces moisture vapor drive. **SG1007 vapor seal** does not alter the bonding **SCP20** Polyaspartic and other coating products.

### APPLICATION PROCESS:

Application temperature range 40°-100°F. Product may be applied by brush, roller or low pressure sprayer.

- Spread the SG1007 evenly over the entire concrete surface, and avoid over-application and puddling.
- Excess un-reacted **SG1007 vapor seal** will leave white crystals on concrete. Brush or broom to a more porous area.
- Two Successive applications should be applied to the concrete surface approximately 30-40 minutes apart until surface refuses product. Each application is to be applied so that a light wet sheen appears on the concrete once dry.
- Approximately 30-40 minutes after the last application of **SG1007 vapor seal**, spray two light coats of clear water, 30-40 minutes apart, to the concrete surface. The water carries and locks in the uncured potassium crystals into the concrete. Then thoroughly rinse the entire surface and allow to dry for 1-2 days depending on the temperature.
- Moisture Test - Calcium Chloride Test, ASTM 1869-11 kits are available at many flooring product distributors.

## SCP20 APPLICATION CHECK LIST AND PROCESS

### SURFACE PREPARATION CHECK LIST:

- Is the concrete surface clean and dry?
- Has the Water Vapor Transmission Rate been verified?
- Has the surface preparation been completed?
- Check all corners and edges for surface proper preparation.
- Check and remove any oil or existing tire marks from vehicle parking areas.
- Has the water porosity test been verified? Water drop test.
- Does the water immediately soak into the concrete?
- Repair all crack and spalls as needed.
- Has all the dust and laitance been cleaned and removed prior to the coating application?

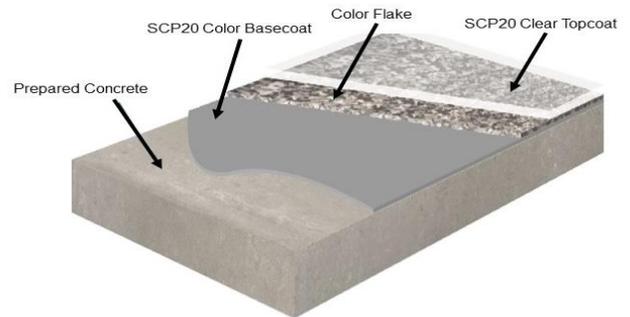
### SYSTEM APPLICATION / EASY 4 STEP PROCESS

**STEP 4:** SCP20 apply the clear topcoat. 

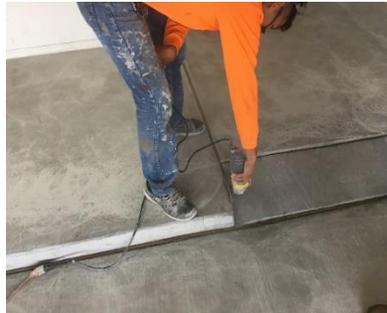
**STEP 3:** Apply Color flake to the basecoat 

**STEP 2:** SCP20 apply basecoat / pigment pack added 

**STEP 1:** Prepare / clean the concrete surface 



Surface Preparation



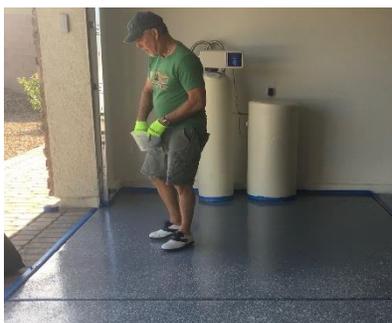
Preparation, Edges, Corners



Apply Basecoat



Apply Basecoat Evenly



Broadcast Color Flake



Scrape Color Flake



Apply Topcoat



Completed Garage

### COATING THICKNESS:

SCP20 application thickness each coat is 5-10 mils, SCP20 is self leveling, don't allow the product to pool in low areas to insure a uniform finish.

### RETURN TO SERVICE:

The SCP20 dry time is 2-3 hours. Light foot traffic is acceptable within 6 hours. Wheel traffic and vehicle parking acceptable with in 48-72 hours. Any residual odor dissipates within 24-48 hours depending on air flow in the garage.