

# CHAMBER SAFE™

## INSTALL INSTRUCTIONS



### MANUFACTURER:

U.S. Fireplace Products, Inc.  
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Lake Bluff, IL 60044  
888.290.8181  
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### INSTALLATION REQUIREMENTS:

Please read the following installation instructions for Chamber Safe prior to installation. Contact local building or fire officials about restrictions and installation inspection in your area prior to application. Use of these materials other than as specified in these installation instructions is prohibited. Air space clearances between the masonry fireplace and combustible materials should be checked to verify that fireplace is built in accordance with clearance specifications as outlined in the NFPA 211, IRC, and manufacturer's installation instructions. Maintain minimum one inch clearance from masonry fireplace to combustible material. Installation of Chamber Safe cementitious resurfacing and refractory parging material must be performed by a qualified chimney professional. For additional questions please contact U.S. Fireplace Products, Inc. or your distributor.

### MATERIALS & TOOLS REQUIRED:

The following list of materials and tools are needed to repair and strengthen a smoke chamber interior using Chamber Safe parging material. Please note that the amount of Chamber Safe parging material needed will vary depending on size of smoke chamber. For additional questions please contact U.S. Fireplace Products, Inc. or your distributor.

1. Chamber Safe (30 lb. bucket)
2. Heavy Duty Drill
3. Masonry Drill Bit
4. Heavy Duty Mixing Paddle
5. Large Plastic Mixing Tub (Or Equivalent)
6. Measuring Cup, Minimum One (1) Cup Size
7. 2 - 3 Clean, Five (5) Gallon Buckets
8. Assorted Masonry Trowels
9. Drop Cloths, Rags, Tarps (Or Equivalent)
10. Dust Mask, Respirator, Eye Protection, Hand & Body Protection

### MIXING & INSTALLATION:

**Safety:** Please use caution when handling Chamber Safe material. Impervious gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact. Safety shoes should be worn to prevent foot injury from accidentally dropped bricks. Use a NIOSH approved respirator when working around material, and when removing this product after service. Avoid contact with skin, eyes, and clothing. After handling this material, wash hands before eating or drinking. This material contains crystalline silica, a substance known to cause cancer. For additional safety information, consult the Safety Data Sheet.

**Product Coverage:** One (1) 30 lb. (13.6 kg) container of Chamber Safe refractory parging material will cover four (4) square feet at 1 1/2" thickness or six (6) square feet at recommended 1" thickness.

**Please Note:** Chamber Safe is a "cementitious resurfacing and refractory parging material" of dry ingredients of various particle sizes, packaged in 30 lb. (13.6 kg) containers. For best results, use only containers and mixing equipment that are free from other masonry or residue. Clean plastic or metal containers work best. Dry mix the container contents before adding water.

Wet mix approximately ten (10) lbs. of Chamber Safe at a time using clean, cold water. Clean, cold water is ideal as hot water will quicken set time. For trowel/parge application add 6-8 cups of water for every ten (10) lbs. of Chamber Safe. For cast application add 8-10 cups of water for every ten (10) lbs. Mix very thoroughly. Cast into form configured as may be needed. Quantity of water may be slightly adjusted by the installer to their preference.

**Area Preparation:** Prior to installation of Chamber Safe brush off and remove any loose masonry from the smoke chamber surface. If tar or creosote is present in smoke chamber, thoroughly clean using sweeping or rotary cleaning techniques. Thoroughly check smoke chamber for cracked, loose, or missing bricks, mortar, obstructions or other materials that could prevent the successful application of Chamber Safe. Pre-dampening the smoke chamber is recommended, but not required.

**Step 1 –** For trowel/parge application add 6-8 cups of water for every ten (10) lbs. of Chamber Safe. For cast application add 8-10 cups of water for every ten (10) lbs. Ensure personal safety measures are taken prior to mixing. Mix thoroughly with drill and paddle mixer to a mortar-like consistency. Continue adding small amounts of additional water to reach desired consistency. To test for proper consistency, a 'handful-sized' ball of mixed material should fall slightly between gaps of fingers.

**Step 2 –** Clear smoke chamber of loose masonry, and creosote. Pre-dampening the surface to which Chamber Safe will be applied prior to installing is recommended, but not required. No standing water should be present.

**Step 3 –** Apply Chamber Safe using hand, trowel, or grout bag starting at the top of the smoke chamber next to the flue liner and working down, applying material in layers. To maximize bonding potential, "slap" material in to place before spreading. Applying material from minimum one inch to several inches thick will achieve best results. Apply to all four sides of the smoke chamber evenly, creating a smooth dome-like structure following NFPA 211 standards.

**Step 4 –** Once Chamber Safe has been applied, a masonry trowel can be used to smooth out surfaces. Do not over work the material, as this may cause bonding to fail.

**Step 5 –** Per the NFPA 211 (standard for chimneys, fireplaces, vents and solid fuel-burning appliances) a chimney (rain) cap must be installed to protect the repaired smoke chamber and chimney interior from excessive moisture.

### CLEAN UP:

Thoroughly rinse tools and mixing containers with water immediately after use.

### CURING:

Finished Chamber Safe applications should be allowed to cure for twenty-four (24) hours with natural air flow. In extreme cold weather, protect applied material during twenty-four (24) hour curing process by plugging chimney just above the smoke chamber and allowing warm room air to enter the smoke chamber. After the twenty-four (24) hour initial curing, the repair should be "heat conditioned" via normal fireplace usage. After the "heat conditioning", the repaired smoke chamber is ready for normal use. Advise homeowners to keep fires small for an additional five days as a precaution. Excessive temperatures could create steam if any residual moisture is still present in repair. Depending on the application and curing conditions, small surface cracks may occur after curing or use and are of no functional concern.