### **Restores The Integrity**

Of Your Fireplace Smoke Chamber

### **Protect Your Home.**

Keep Fire In Its Place

Heat (Shield)
PriorFire Formula 51

Formula 51 is an insulating, high-temperature refractory mortar, developed specifically for parge coating smoke chamber walls. When it is properly applied, it restores the integrity of your fireplace. Formula 51 insulates, seals gaps, and smoothes the smoke chamber walls as required by both NFPA and IRC codes.

### **Protect Your Home With Formula 51**

Formula 51 has been tested and listed by Underwriters Laboratories - Cementitous Materials Used for Resurfacing Smoke Chambers of Masonry Fireplaces. This rigorous testing included Brand Fire Test, Flash Fire Test, Resistance to Action of Acid Test and Freeze/Thaw Resistance Test. Formula 51 was tested to ASTM C-199 and proven to withstand temperatures in excess of 2500F, (roughly two times the operation temperature of the average fireplace).

### **20-Year Limited Warranty**

When Formula 51 is used to restore the integrity of your smoke chamber, you will have the assurance of knowing your fireplace is made safer and more

efficient. Your professionally applied Formula 51 repair is backed by a 20-year material warranty. Ask your chimney professional for details.



According to the National Fire Protection Association (NFPA), defective smoke chambers are the third leading cause of chimney related house fires. For the safety and efficiency of your fireplace, it is important that any gaps, cracks, or holes in the smoke chamber be sealed and the brick corbelling be made smooth. Because the smoke chamber is a "high heat" area, any gaps, cracks, or holes can allow excessive heat to attack any surrounding wood or combustibles. The jagged corbelling slows the draft and will provide more surface area for highly combustible creosote and soot to form.

### National Fire Protection Association (NFPA)

**211...**Standard For Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances 2019 Edition

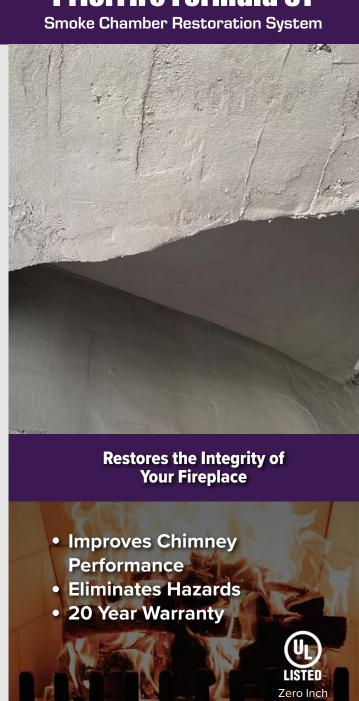
**11.2.1.13...**The inner surfaces of the smoke chamber shall be parge coated smooth, with an insulating refractory mortar...

## **2018 International Residential Code - Fireplaces And Chimneys**

**R1001.8...**Smoke chamber walls shall be constructed of solid masonry units, hollow masonry units grouted solid, stone or concrete... The inside surface shall be parged smooth with refractory mortar conforming to ASTM C199.



(800) 860-6327 800 S 7th St Richmond, IN 47374 saversystems.com



# Heat Name Shield Prior Fire Formula 51

## **Smoke Chamber Restoration System**

Helps ensure the safe and efficient operation of your fireplace.

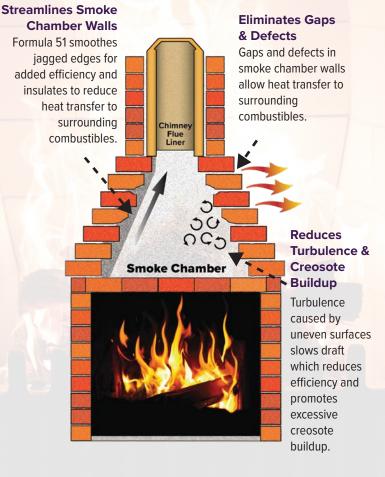
### **Anatomy Of Your Fireplace**

In your masonry fireplace there is an area called the smoke chamber. In most fireplaces it can be viewed by shining a strong light up through the damper. Its function is to safely transition smoke and hot gases from your fireplace to the narrow flue of your chimney.

Roughly the shape of an upside down funnel, the smoke chamber starts just above the damper and ends where the chimney begins. The brick along the sides of the smoke chamber are often stepped outward one above the other, upwards until they meet the flue. This is a process called "corbelling". The corbelled brick in your smoke chamber will look like an upside down staircase.

Exposed corbelling increases smoke turbulence and reduces the efficiency of the smoke chamber. This allows dangerous creosote and soot to build in the smoke chamber and flue liner. To protect the integrity and increase the efficiency of your smoke chamber, the corbelled areas and any gaps, cracks or jagged edges should be coated and parged smooth with an insulating, high-temperature mortar such as Formula 51.

## to its originally intended peak level of safety and efficiency



#### Watch Video



Exposed Brick Before Formula 51
Application

#### Watch Video



Formula 51 Application Seals Gaps, Cracks, Holes, and Streamlines Smoke Chamber Walls