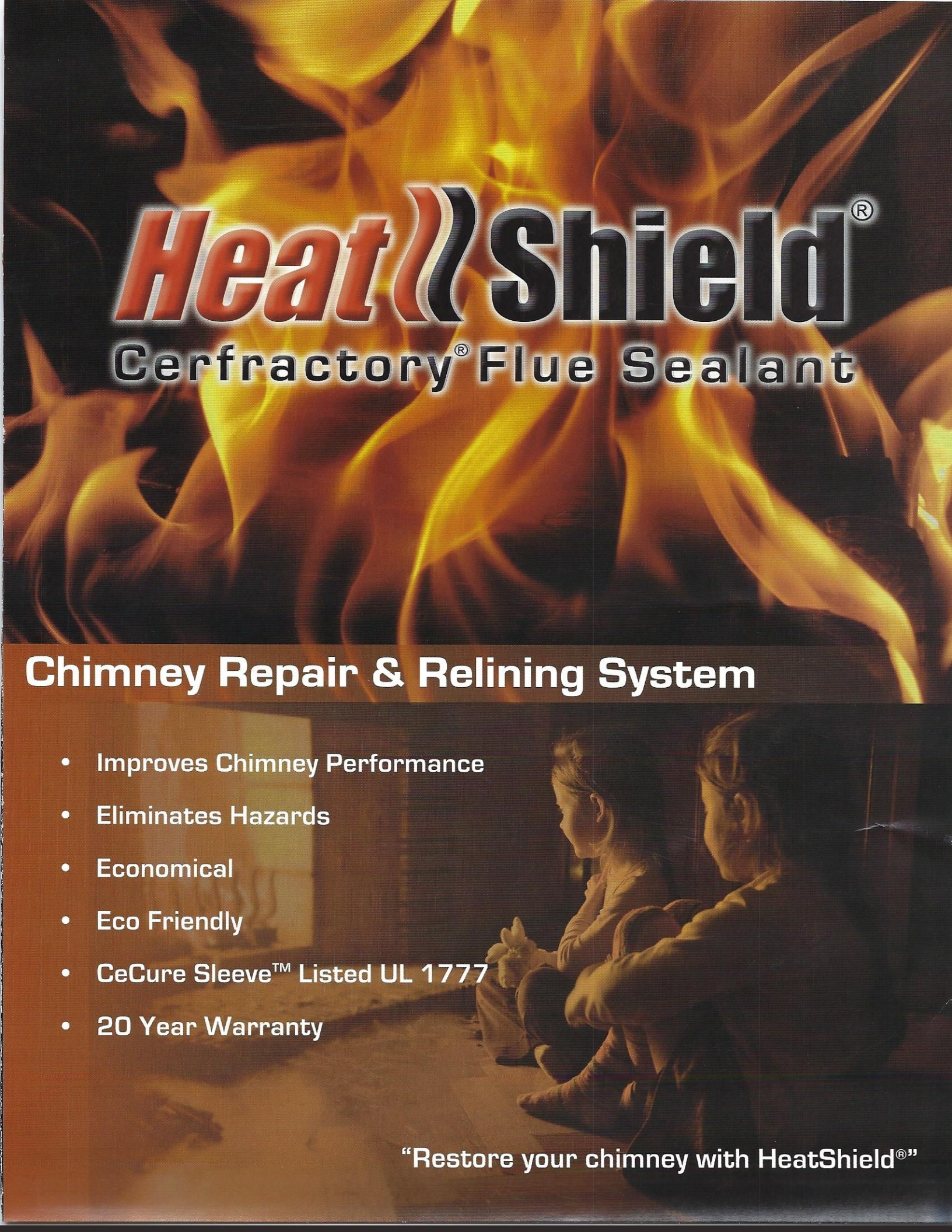
# HeatShield®

## Cerfractory® Flue Sealant

## Chimney Repair & Relining System

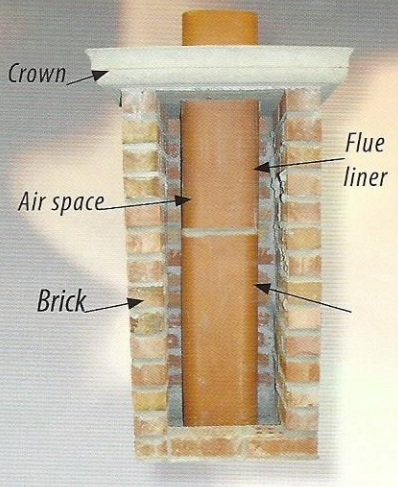
- Improves Chimney Performance
- Eliminates Hazards
- Economical
- Eco Friendly
- CeCure Sleeve™ Listed UL 1777
- 20 Year Warranty



"Restore your chimney with HeatShield®"

# Anatomy Of Your Chimney

Whether your chimney is used to vent a fireplace, woodstove, or furnace, most have sections of clay flue tile stacked one above the other to form a liner called the flue. The flue liner should be tightly sealed to protect the integrity and efficiency of your chimney. But over time, hidden dangers can develop that will compromise the safety and efficiency of your chimney.




# Are There Hidden Dangers In Your Chimney?

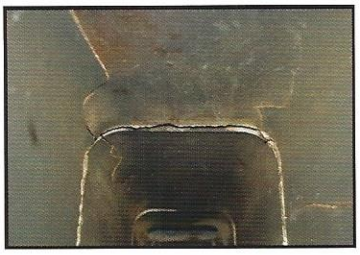
## Gaps Between Flue Tiles

The combustion process creates noxious gases that can contain creosote/soot, carbon monoxide, and corrosive chemicals. The purpose of your chimney is to safely vent hazardous flue gases from your home. Flue tiles are typically sealed with mortar to keep these gases within the flue. But over time, the mixture of heat, moisture, and chemicals, will erode the mortar, leaving gaps or voids between flue tiles.

*Actual photo of deteriorated mortar joint between flue tiles*

## Cracked Flue Tiles

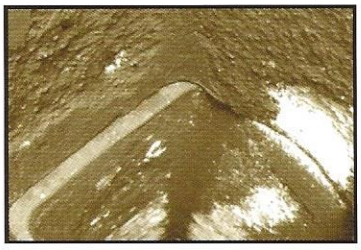
Flue tiles crack due to "sudden occurrences" such as a chimney fire, lightning strike, or seismic event. Cracks may also be caused by poor workmanship or settling of your home.



*Actual photo of cracked flue tiles*

## Flaking Flue Tiles (Spalling)

Years of exposure to corrosive chemicals and moisture from combustion can attack clay flue tiles, causing pieces of the flue liner to flake off or delaminate, a process called spalling.

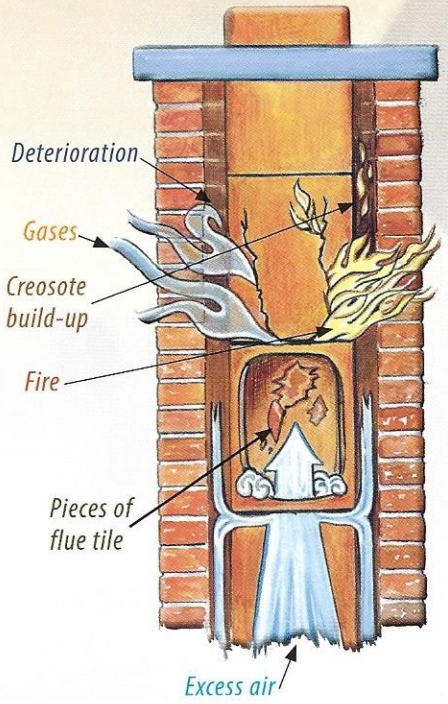


*Actual photo of spalled flue tile*

# How These Hidden Dangers Can Affect You

## Fire & Health Risks

These defects, no matter how small, begin a process that will further erode the chimney and can pose a threat to your family's health. When heat, moisture, and gases escape through gaps or cracks in your chimney, they deteriorate your chimney from the inside out. More importantly, the gaps and cracks can cause health risks, by allowing poisonous gases to escape into your home. Combustible creosote or soot can escape through these openings and build up outside the flue liner. If the creosote were to catch fire in this area of your chimney, serious damage can occur, because the fire can no longer be contained within the flue. Pieces of flue tile that flake off due to spalling, can form dangerous blockages within your chimney.




## Loss Of Efficiency

To work correctly and efficiently, chimneys must be gas tight and free of gaps and cracks. Gases rising up through your chimney are similar to liquid being sipped through a straw. If the straw has a crack or hole in it the liquid will not flow effectively through it. Gaps or cracks allow excess air into your chimney, slow the updraft and make it harder for smoke and gases to rise up and out. Hence, the fireplace, woodstove, or furnace will perform poorly, resulting in loss of heat efficiency.

### Chimney Safety Institute Of America (csia.org)

**According to the CSIA (csia.org), problems such as gaps, cracks, and spalling in your chimney's flue can present serious risks to your home and family, because your chimney can no longer perform its intended function– to safely contain and vent the products of combustion to the outside.**

### Building Codes

**Building codes and fire standards require that chimneys are structurally sound, durable, smoke tight and capable of conveying flue gases to the outside completely and safely.**

### National Fire Protection Association (NFPA)

**"If the flue liner in a chimney has softened, cracked or otherwise deteriorated so that it no longer has the ability to contain the products of combustion (i.e., heat, moisture, creosote, and flue gases), it shall be removed and replaced, repaired or relined…" NFPA 211- Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances (2006).**

# HeatShield®

# Cerfractory Foam

## Restores The Integrity Of Your Fireplace

HeatShield Cerfractory Foam Smoke Chamber Sealant helps ensure the safe and efficient operation of your fireplace.

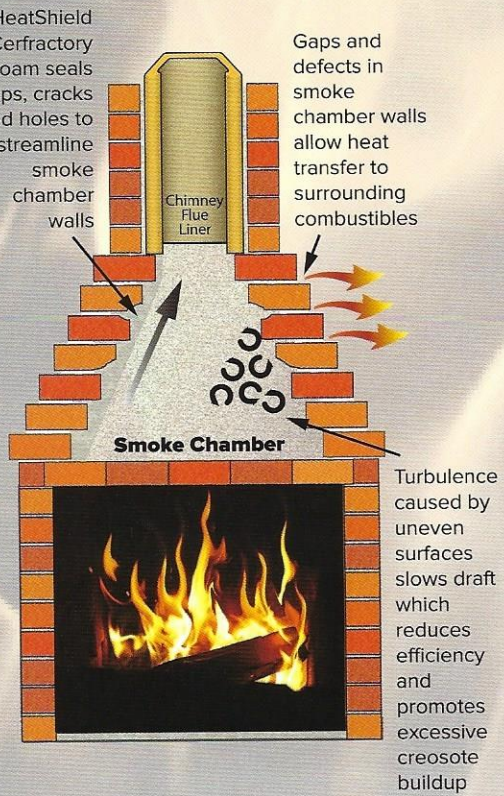
## Anatomy Of Your Fireplace

In your masonry fireplace there is an area called the smoke chamber. In most fireplaces it can be easily 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 bricks along the sides of the smoke chamber are often stepped outward one above the other, until they meet the flue. This is a process called "corbelling".

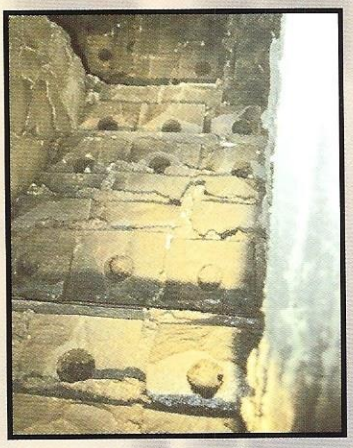
The corbelled brick in your smoke chamber will look like an upside down staircase.




To protect the integrity and efficiency of your fireplace, the smoke chamber should be free of any gaps, cracks, or jagged edges. The corbelled areas of the smoke chamber should be coated with an insulating, high-temperature mortar to fill any gaps and smooth out any jagged edges.

## Smoke Chamber Or Fire Chamber

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.



***Jagged Corbelling and Exposed Brick Cores (Holes) in a Smoke Chamber***

### National Fire Protection Association (NFPA)

**211Standard For Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances 2010 Edition**

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

### 2006 International Residential Code-Fireplaces And Chimneys

***R1001.8*** **….. Corbelling of masonry units shall not leave unit cores exposed to the inside of the smoke chamber…. Firebrick shall be laid with medium duty refractory mortar conforming to ASTM C199…. When the inside surface of the smoke chamber is formed by corbelled masonry, the inside surface shall be parged smooth.**

## HeatShield Restores The Integrity Of Your Fireplace Smoke Chamber

HeatShield Cerfractory Foam Smoke Chamber Sealant is a high-temperature, expandable foam. It's applied using a specially designed sprayer to coat the walls of your smoke chamber, restoring the integrity of your fireplace.
It seals gaps, cracks, and smoothes up any jagged and corbelled brick edges.


*Exposed Brick Corbells Before HeatShield Cerfractory Foam*

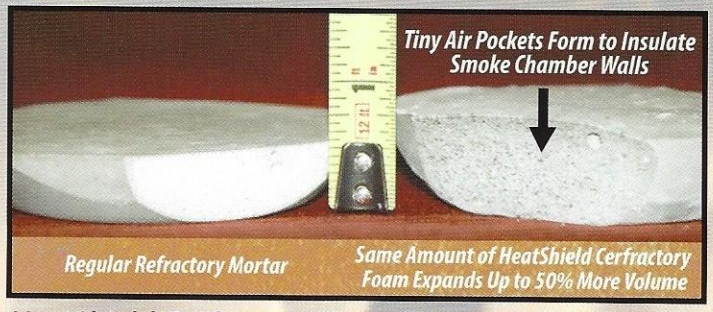

*HeatShield Cerfractory Foam Application Seals Gaps, Cracks, Holes, and Streamlines Smoke Chamber Walls*

## Economical And Environmentally Friendly

HeatShield Cerfractory Foam is an "eco friendly" product made from recycled and naturally occurring materials. Because the material can be sprayed into the smoke chamber through the narrow damper opening, there is no need to demolish the damper and firebox to gain access for repair.

## Where There Is Heat, Protect Your Home With HeatShield

HeatShield Cerfractory Foam is a hybrid (ceramic/refractory) coating that expands up to 50% of its volume as it cures. It dries rock hard to form "closed cell" air pockets that insulate and seal up gaps, cracks, and holes in your smoke chamber.




HeatShield Cerfractory Foam has been tested and listed by Warnock Hersey to UL subject 2505-Materials used for Resurfacing Smoke Chambers of Masonry Fireplaces. It has also been tested by Orton Ceramic Testing and Research Center to ASTM C199, and is rated a "Super- Duty" refractory mortar; able to withstand temperatures in excess of 2900° F. This surpasses both National Fire Prevention Association (NFPA 211) and International Residential Code, (IRC) which require a medium-duty refractory mortar for use in fireplaces and chimneys.

## 20-Year Limited Warranty

When HeatShield Cerfractory Foam 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 HeatShield Cerfractory Foam repair is backed by a 20-year material warranty. Ask your installer for details.


**CeCURE®**
CHIMNEY SYSTEMS LLC
c/o SaverSystems
800 South 7th Street Richmond, IN 47374
www.chimneysaver.com

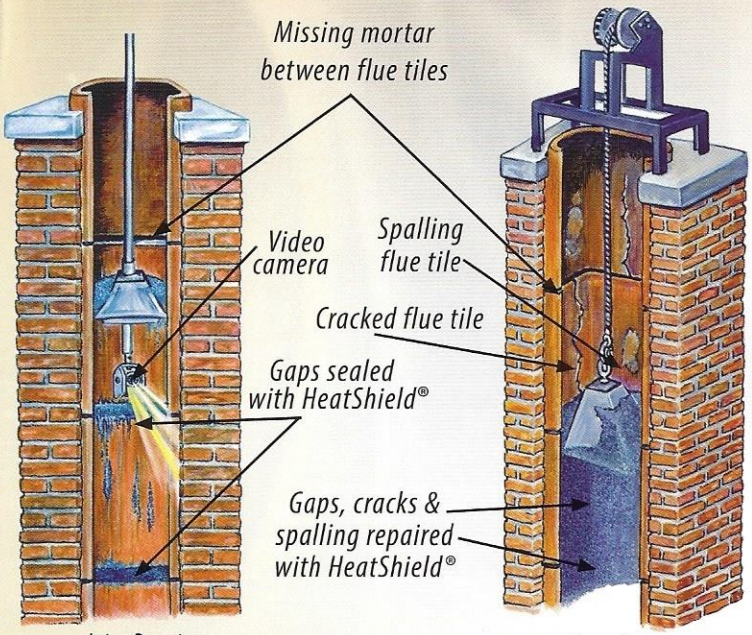
**Available From**

# HeatShield Restores Your Chimney

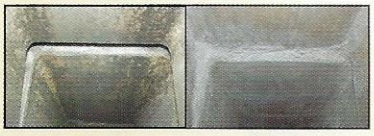
HeatShield® is a specially formulated "Cerfractory®" sealant material that restores the integrity of your chimney's flue to vent hazardous flue gases from your home. It eliminates the dangers in your chimney caused by gaps, cracks, and spalling for years to come. By using either the Repair System or the CeCure® Sleeve Relining System (depending on the defects found) your chimney will be restored to its original peak level of safety and efficiency.

## Repair

To repair chimney interiors, one of two methods are used. The Joint Repair System is used for chimneys that only require repair of defective mortar joints. The Resurfacing System is used to repair mortar joints and other minor defects in tile lined flues.

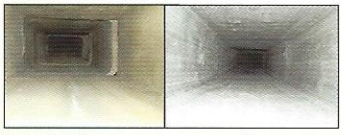



Joint Repair



Before After

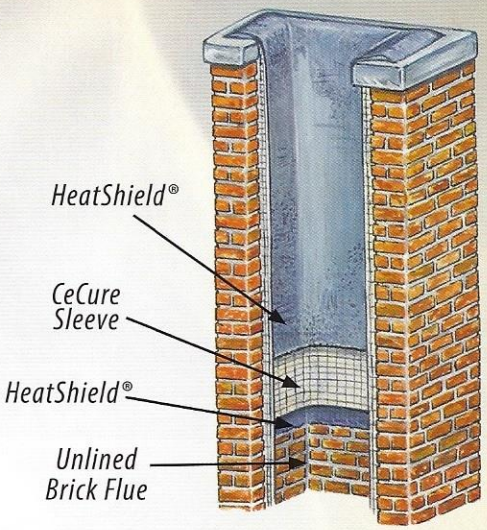
Resurfacing



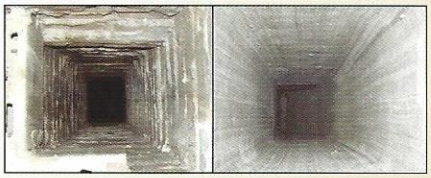
Before After

## Reline

In chimneys with more serious defects or unlined chimneys, HeatShield® can be used with the CeCure® Sleeve. The CeCure® Sleeve is a thin profile, ceramic insulation, reinforced with stainless steel fabric that is sandwiched between two coats of HeatShield® Cerfractory® Flue Sealant.

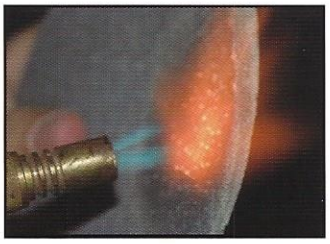



CeCure Sleeve Liner



Before After

## HeatShield® Takes The Heat– So You Don't Have To



Actual disk of HeatShield Cerfractory heated with torch

Developed in Europe over 20 years ago, HeatShield's Cerfractory® technology is a hybrid (ceramic/refractory) coating and proven effective both in use and by independent lab testing. As a repair, it's been proven to withstand moisture, corrosive flue gases, and temperatures in excess of 2900°F. It's rated a "Super-Duty" refractory mortar per ASTM (American Society for Testing and Materials) C199. It surpasses both National Fire Prevention Association (NFPA) and International Residential Code (IRC) which require only a "Medium-Duty" refractory mortar for use in fireplaces and chimneys. It is an approved "all fuel" chimney liner and listed to UL 1777 by Warnock Hersey with the addition of the CeCure Sleeve. To learn more about HeatShield's® extensive testing, listing, and certification visit CeCureChimney.com.

## Your Chimney: Expertly Repaired

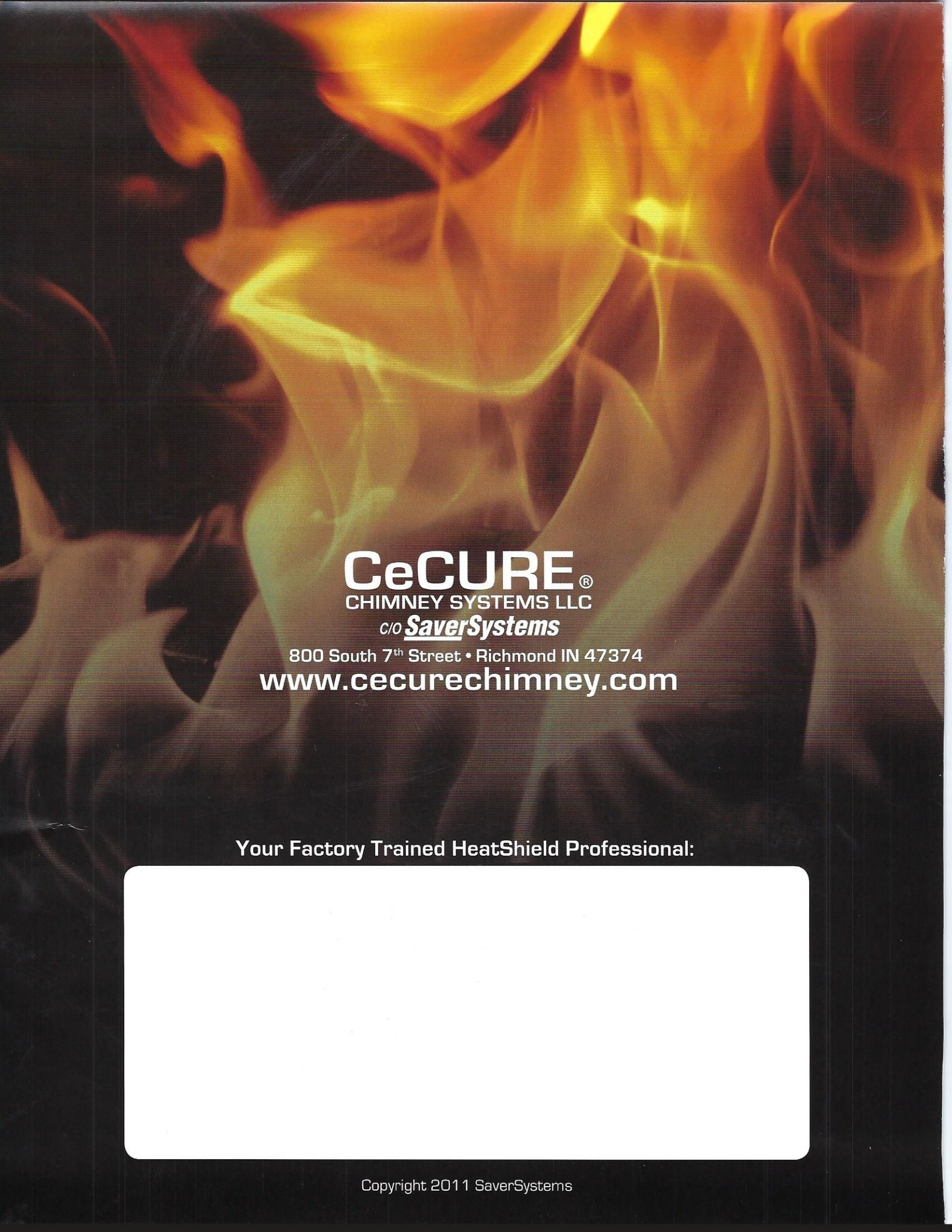
Independent HeatShield Installers are carefully selected based on their industry certifications and experience. Armed with factory training and specially designed tools, your HeatShield® professional can expertly repair your chimney. Special video cameras are used to verify completed repairs.

## Economical And Environmentally Friendly

HeatShield® is an "eco friendly" product made from recycled and naturally occurring materials. HeatShield® offers you and your chimney professional a less costly alternative to rebuilding your chimney or the destructive removal of flue tiles before the chimney can be relined.

## 20-Year Limited Warranty

Whether your chimney requires repair or relining, HeatShield® is covered by a 20-year material warranty. Ask your HeatShield® professional for details.



# CeCURE®

CHIMNEY SYSTEMS LLC

c/o SaverSystems

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www.cecurechimney.com

**Your Factory Trained HeatShield Professional:**