

# What you should know about Creosote

**Creosote:** Highly flammable chimney and stovepipe deposits originating as condensed components in smoke (including vapors, tar and soot). Creosote is often initially liquid, but may dry or may change because of heat to a flaky or solid, glazed form.

## Creosote & Chimney Fires...

A dirty chimney with only a quarter inch of soot contains the highly flammable substance called creosote. A hot fire around 1000 °F could easily ignite this substance into a roaring chimney fire. At the height of a chimney fire, the creosote can burn at temperatures exceeding 2000 °F. Flames and flying embers can easily land on the roof and ignite the wood framing of your home. The intense heat can cause the flue to crack or collapse thus causing the interior walls of your house to burst into flames.

Creosote in chimneys comes in several stages. In its flaky, soot form, it is easily brushed away leaving safe and clean flue walls. When it appears as hard, brittle deposits, the chimney sweep's extra efforts in brushing will remove most of the build-up. But the nasty glazed variety is truly the most dangerous form, and the most difficult to remove from your home's wood burning system. And until recently, glazed creosote was almost impossible to remove in many instances.

Glazed creosote in your chimney is recognizable by its dense, shiny tar-like appearance. This unpleasant substance is basically wood tar, which has become baked onto the walls of the chimney or flue lining. Once it gets burning in your chimney, it is extremely difficult to extinguish.

## What causes glazed creosote to accumulate?

Unfortunately, there is no such thing as creosote-free wood burning. Creosote accumulation will occur no matter what kind of wood is burned and no matter what kind of wood burning system is used. What determines the type of creosote and its severity is how the fuel is burned. Solid fuel authorities agree that the amount of smoke, the temperature of the fire and the regulation of air (turbulence) are the major variables, which determine the amount of build-up. A low burning fire, for example, will result in incomplete combustion, the number one cause of glazed creosote accumulation. An improperly installed fireplace insert, one that allows the smoke to cool too quickly in the firebox, is another situation which causes severe glazing. To combat this problem, flue gases should be kept between 250° and 500°F. If creosote accumulations are to be reduced in amounts and in thickness. (Be sure to ask our chimney sweep about proven methods to assure correct burning.)

If your chimney sweep has already diagnosed glazed creosote as a problem in your chimney take his or her advice seriously. DO NOT continue to use your affected fireplace or wood stove. The simple fact is that a hot fire could easily ignite the glazed creosote and result in a dangerous chimney fire. And a low burning fire under such hazardous conditions will only worsen the glazed creosote problem.

## Can my chimney be treated?

Yes! There is now a product available to professional sweeps for removing glazed creosote. It's called TSR, or Third Stage Remover. Simply stated, this strong effective formula of fine cleaners dissolves baked-on resins from masonry, metal and stainless steel surfaces by reducing the hard glazed substance to loose, brushable soot.

The TSR application will involve hard work by your chimney sweep, but the results will be worth the extra effort. After the product is applied, a drying time of 24 hours or more is required. As is often the case, several days may be necessary for complete drying to occur before brushing can begin.

Sometimes, the glazed creosote build-up is extremely thick and difficult to completely remove in just one application. Therefore, the more severe instances of glazing can require two or three application of TSR for 90% to 100% removal.

It is important to keep in mind that your professional sweep is able to suggest valid and honest corrective measures in making you home safe from chimney fires. Your family's safety and the protection of your personal property are the professional sweep's primary concerns.

To effectively remove hazardous glazed creosote from your home, take the time to discuss TSR with your sweep. Should you desire more information on glazed creosote and other possible fire hazards in your home, contact your local fire chief or marshal.