



## *IRC to Require Fire Sprinklers in New Residential Construction: Learn How BlazeMaster® Fire Sprinkler Systems Can Help Your Business*

*"A stand-alone  
BlazeMaster  
residential fire  
sprinkler system  
is the best choice  
for single or  
multi-family  
residences."*

Each year, fire kills more people in the United States than all natural disasters combined. Sadly, nearly 4,000 people on average die in fires each year, 82 percent in their own homes.\* Thousands more suffer terrible burn injuries.

Because of this, on Sunday, September 21, the International Code Council (ICC) voted to require sprinklers in all new single family, two-family, town homes and manufactured housing built under the International Residential Code (IRC).

Fire sprinkler systems help prevent loss of life and injury by quickly responding to fires and restricting the spread of heat, smoke and poisonous gases. Costing as little as 1 to 1½ percent of total construction costs (according to the Home Fire Sprinkler Coalition), residential sprinkler systems provide added peace of mind for buyers and a great competitive advantage for builders and installers.

The ICC writes model building codes used in most jurisdictions in the United States and will publish these new requirements in its 2009 edition of the IRC. Gary Johnson, Global Business Development Manager for BlazeMaster® fire sprinkler systems says, "For there to be enough fire sprinkler installers to meet demand, plumbing and fire sprinkler contractors are going to have to take advantage of this opportunity to diversify their skills and get the proper training to be permitted by state and local requirements to install residential fire sprinkler systems." While there is a delayed implementation that will not require jurisdictions to start installation of systems until January 1, 2011, it is critical that both jurisdictions and installers arm themselves with knowledge of fire sprinkler systems now.

There are two options when designing a fire sprinkler system for one- and two-family dwellings. A fire sprinkler system can be designed as a separate, "stand-alone" (dedicated) system or the fire sprinkler system can be combined with the cold water plumbing system in a "multipurpose system."

\*Home Fire Sprinkler Coalition

Offering the same corrosion-resistance, easy installation and reliable performance benefits you've come to expect from sister piping products FlowGuard Gold® and Corzan® CPVC, a stand-alone BlazeMaster residential fire sprinkler system is the best choice for single or multi-family residences. Consider that BlazeMaster fire sprinkler systems offer:

**Safety** – Stand-alone systems work independently of the plumbing system so homeowners don't have to worry about shutting the fire sprinkler system down when making renovations involving the plumbing system.

**Labor Availability** – According to Sprinkler Age magazine, most states require special licensing or other requirements in order to install fire sprinklers. Until plumbers get the additional training and licensing they need, the plumbing and fire sprinkler systems need to be installed by separate, properly trained and licensed installers.

Although both CPVC and PEX piping can be used for a multipurpose fire sprinkler/plumbing system, a CPVC system using BlazeMaster and FlowGuard Gold pipe and fittings is the perfect combination, offering:

**Assurance** – A color-coded system (tan for plumbing, orange for fire sprinkler) enables easy inspection by the authority having jurisdiction as well as the homeowner. Color coding is also important for future renovations to identify which pipe is going to the sprinkler head versus the toilet.

**Safety** – CPVC will not sustain a flame. PEX does ignite and can be used to fuel a fire.

**Versatility** – Only CPVC can be used in both a multipurpose and a stand-alone fire sprinkler system.

**Lower Installed Cost** – Because BlazeMaster pipe is manufactured to SDR 13.5 dimensions, it allows for increased water flow and fewer sprinkler heads over similarly sized PEX systems. PEX, manufactured to SDR 9 dimensions, has a smaller inside diameter and can not deliver enough water to supply extended coverage sprinklers.



BlazeMaster fire sprinkler systems also have more approvals and listings than any other non-metallic fire sprinkler system. This means there

is more flexibility for where and how the system can be installed including a listing for an exposed installation in an unfinished basement.

**The table below is a direct comparison of a BlazeMaster/FlowGuard Gold multipurpose system to a PEX multipurpose system.**

<b>BlazeMaster/FlowGuard Gold Multipurpose System</b>	<b>PEX Multipurpose System</b>
BlazeMaster pipe and fittings are specifically designed for fire sprinkler systems. FlowGuard Gold pipe and fittings are specifically designed for plumbing systems. Together, they are the best multipurpose system.	PEX is specifically designed for plumbing systems.
More water volume is dispersed due to larger inner pipe diameter size – SDR 13.5.	Less water volume is dispersed due to smaller inner pipe diameter size.
Requires fewer sprinkler heads; approved for extended throw and sidewall sprinklers.	Extended throw sprinklers require greater pressure – PEX literally can't handle the pressure.
Lower installed cost. – Extended throw sprinklers reduce head count by 25%. – Less pipe needed means less material and lower labor costs.	PEX systems require more pipe and more sprinkler heads than CPVC systems – meaning greater material and labor costs.
Can be installed in stand-alone or multipurpose systems.	PEX can only be installed in a multipurpose system.
Limiting Oxygen Index (LOI) of 60 LOI is the percentage of oxygen needed to support combustion. Any material with an LOI above 21% will not burn under normal atmospheric conditions. This means CPVC cannot burn by itself. It will not ignite unless a heat source is present, and will stop burning once the heat source is removed or extinguished.	Limiting Oxygen Index (LOI) of 17-18 which indicates that PEX does ignite and burn under normal atmospheric conditions.
BlazeMaster fire sprinkler systems can be used in both exposed installations and behind drywall.	PEX can only be installed behind drywall.
CPVC has nearly 50 years of proven performance in water distribution and 20+ years in fire sprinkler applications.	In the U.S., PEX piping has been primarily used in plumbing applications with little track record in fire sprinkler installations.

**Now listed  
for more types  
of applications  
than any other  
non-metallic  
system.**

**Before You Start Installing Fire Sprinkler Systems, Check:**

- ✓ *Local and state licensing requirements*
- ✓ *State continuing education requirements*
- ✓ *With your insurance company to understand possible cost increases*
- ✓ *If detailed hydraulically designed layout drawings are required*
- ✓ *To see if drawings need to have NICET Certification or a PE stamp*

For more information or to register for BlazeMaster fire sprinkler installation training, visit [www.blazemaster.com](http://www.blazemaster.com) or contact your FBC™ Building Solutions representative.

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