

Commercial Building Fire Protection Systems



SCIENCE. SERVICE. SAFETY.

BlazeMaster® Fire Protection Systems is the most specified non-metallic piping system in the world—a proven choice for any light hazard project.

Diverse Commercial Applications

There's a widespread misconception that BlazeMaster Fire Sprinkler Systems are restricted to residential projects. In fact, BlazeMaster CPVC is UL listed for use in light hazard occupancies as defined by NFPA 13, such as:

- Clubs
- Museums
- High-rises
- Schools
- Offices
- Places of Worship
- Hospitals
- Institutional
- Theaters and Auditoriums
- Libraries
- Nursing Homes

Specifications and Innovative Uses for BlazeMaster Fire Protection Systems

You can find the detailed specification for installing BlazeMaster Fire Sprinkler Systems at BlazeMaster.com. In addition, keep in mind that BlazeMaster CPVC pipe and fittings are approved for use in unique applications such as:

- **Poured concrete.** BlazeMaster Fire Sprinkler Systems have a unique Underwriter's Laboratory listing for embedding in concrete walls and ceilings. Embedding BlazeMaster CPVC within a concrete ceiling hides the fire sprinkler system to improve aesthetics and eliminates the cost of drop ceilings and fire sprinkler system hangers.

About BlazeMaster Fire Protection Systems

- Proven success protecting people and property since 1984
- The most specified non-metallic fire protection piping system in the world
- Over 2 billion feet (600 million meters) of BlazeMaster pipe and fitting systems have been installed worldwide



- **MRI rooms and other healthcare settings.** A BlazeMaster Fire Sprinkler System is the right choice for special settings such as MRI rooms, where non-ferrous materials must be used to protect sensitive equipment from electrical and magnetic interference. In other areas with sensitive equipment, BlazeMaster CPVC is less likely to interfere with wireless connections that are now common in healthcare.
- **Drain pipes.** While there's a long-standing myth that steel is required for drain pipes, BlazeMaster CPVC is permitted under NFPA guidelines and help prevent leaks and reduce total cost of ownership.
- **Low-pressure dry/preaction systems.** Where required to prevent freezing, Fire Sprinkler Systems are an optimal choice for streamlining installation and reducing costs.

BlazeMaster Fire Protection Systems Delivers Cost Savings for New School

A West Texas school district saved 5-10% by using BlazeMaster fire sprinkler systems instead of steel on a 140,000 square foot school for 700 students in grades K-8. The BlazeMaster Fire Protection Systems team supported the sprinkler service provider in collaborating with the school board and ensuring successful inspections by the Authority Having Jurisdiction. Throughout the project, BlazeMaster Fire Sprinkler Systems proved to be a more easily adaptable system than steel in accommodating design alterations.

"The many design alterations throughout the construction made the use of BlazeMaster CPVC pipe and fittings systems a more easily adaptable system than steel, which would have required refabbing in the field."

— SFS Security Systems



- **Aspirating smoke detection systems.** BlazeMaster Fire Sprinkler Systems are an ideal choice for these systems, used in active fire protection, that draw air through a network of pipes to detect smoke and trigger the sprinkler system.

The Science of Safety

When installed per its listings, BlazeMaster CPVC resists heat and fire and maintain its structure when directly exposed to flame to ensure water is delivered to suppress a fire. That's because CPVC is a thermoplastic made from a base PVC polymer that has been fortified with additional chlorine molecules. The extra chlorine, along with specialized additives, enables the material to reliably stand up to intense heat and pressure.

When CPVC is exposed to fire, a charring layer is formed on the outside of the pipe and fittings, which then functions as a thermal barrier that reduces the conduction of heat. Water flowing through the piping system will also cool the inside to further resist heat. BlazeMaster Fire Sprinkler Systems have been listed by UL to UL1821 and approved by FM to FM1635.

Equally important, BlazeMaster CPVC offers superior hydraulics compared with steel pipe. Because they feature a smoother interior surface, water flows with less friction than in steel pipe. And the hydraulic performance of steel will decline over time due to corrosion and scaling (mineral buildups).



The Lubrizol Corporation, a Berkshire Hathaway company
9911 Brecksville Road ■ Cleveland, Ohio 44141-3201 USA
216.447.5330 ■ blazemaster@lubrizol.com

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for any light hazard project.**



Scan the QR code to make the
grade on your next project.