

Environmental Impact

BlazeMaster® Fire Protection Systems
a Better Choice Than Steel



SCIENCE. SERVICE. SAFETY.



Known for its Easy Installation and Reliable Fire Protection Systems

BlazeMaster® CPVC has grown to become the most specified nonmetallic fire sprinkler system in the world. It is approved for the following applications:

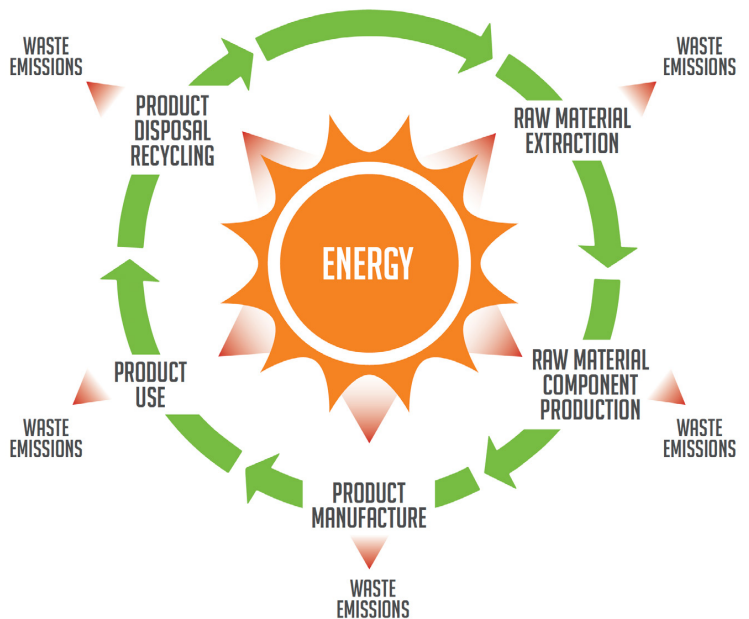
- Single family residential, duplexes and mobile homes
- Multifamily residential
- Light-hazard commercial use, including hospitals, schools, long-term care facilities and high-rise residential buildings

The industry's understanding of manufacturing's environmental impact has become more sophisticated. It's not just about what comes out of smokestacks and sewer pipes. The impacts range from securing the resources and the amount of energy used in the manufacturing process to the ultimate disposition of the material.

Builders, contractors and homeowners are consciously choosing products and materials that do the least amount of damage to the environment. And that selection process extends to fire sprinkler systems.

Lubrizol Advanced Materials, creator of BlazeMaster CPVC, supports green building practices and wanted to learn more about the environmental impact of its product. So, it authorized a Life Cycle Assessment (LCA).

An LCA is an environmental assessment of all materials, and the energy input and output associated with all phases of a product, from the raw material through manufacturing, use and ultimate disposal. It goes beyond carbon emissions and energy usage to include such things as resource depletion and human toxicity. It is, in short, a "cradle to grave" evaluation of a product's environmental impact.



Life-Cycle Assessment (LCA) – An LCA assesses the environmental impact of the manufacturing, use and end-of-life phases of a product.



BlazeMaster Fire Protection Systems: Better for the Environment

Lubrizol believes the more we know about the environmental impact of BlazeMaster pipe and fittings, the more informed choices can be made by builders, contractors and architect/engineers. We are the only company in the industry to do such a study.

The LCA was performed by Environmental Resources Management, an independent environmental research firm. It conducted an LCA of two common materials used for fire sprinkler systems in the U.S. — steel piping

and BlazeMaster CPVC piping — to determine which material's production, use and end of life were more detrimental to the environment.

The environmental performance gap between BlazeMaster pipe and fittings and steel piping systems will likely get wider. Although CPVC is recyclable, the LCA conservatively assumed no CPVC recycling, compared with the 100% recycling rate assumed for steel.



Green Building is More Than a Trend

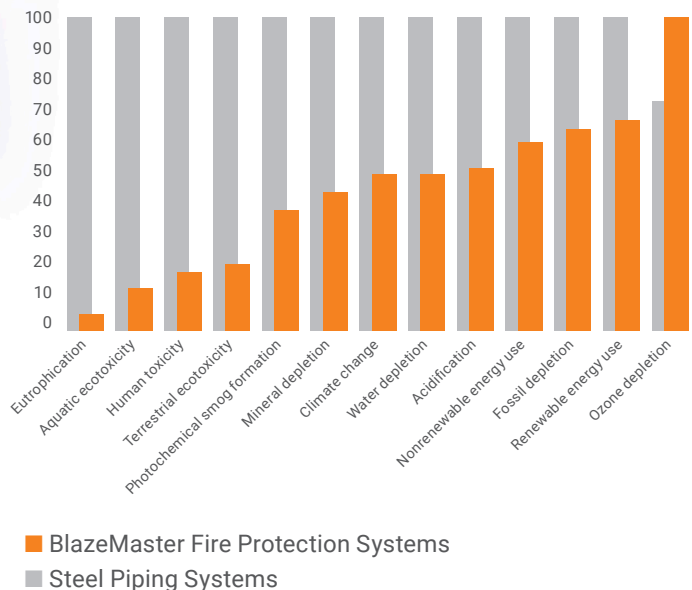
Currently, CPVC can be recycled as PVC piping or window profiles. Piping material can be collected on the jobsite by a specialized recycling firm (country specific) and ground into pellets and granules which in turn can be mixed into different applications such as:

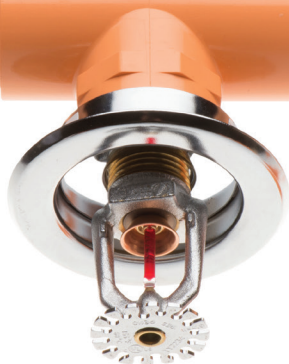
- Floor fillings
- Floor coatings
- Cable trays
- Car mats
- Speed bumps

As CPVC recycling infrastructure grows and the recycling rate increases, CPVC can be expected to widen its environmental performance gap over steel.

Environmental Performance Gap

In the ISO-compliant study, BlazeMaster Fire Protection Systems was compared against steel in 13 categories of environmental impacts. BlazeMaster CPVC beat steel in 12 of the 13 categories, including climate change. BlazeMaster CPVC is preferable to steel for environmentally conscientious builders.





Make the Right Call

BlazeMaster Fire Protection Systems can contribute toward LEED® credits when used as part of a qualifying building design. To request the BlazeMaster CPVC Life Cycle Assessment (LCA), please contact a piping consultant at 855.735.1431.

The LCA findings, combined with the other benefits of BlazeMaster CPVC, including corrosion resistance, a fast, easy and safe installation process, and lower costs, are why BlazeMaster Fire Protection Systems are the most specified nonmetallic system in the world.



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