

A close-up photograph of a male worker wearing a red hard hat with the BlazeMaster logo and safety glasses. He is focused on working on a bright orange fire sprinkler pipe. The background shows more of the same orange piping in an industrial setting.

**BlazeMaster®**  
FIRE SPRINKLER SYSTEMS

# THE ENVIRONMENTAL IMPACT OF THE BLAZEMASTER® FIRE SPRINKLER SYSTEM

► **WHY BLAZEMASTER IS A BETTER CHOICE THAN STEEL**

# KNOWN FOR ITS EASY INSTALLATION AND RELIABLE FIRE SPRINKLER SYSTEMS

BlazeMaster® 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
- Multi-family residential
- Light-hazard commercial use, including hospitals, schools, long-term care facilities and high-rise residential buildings

## GREEN BUILDING IS MORE THAN A TREND

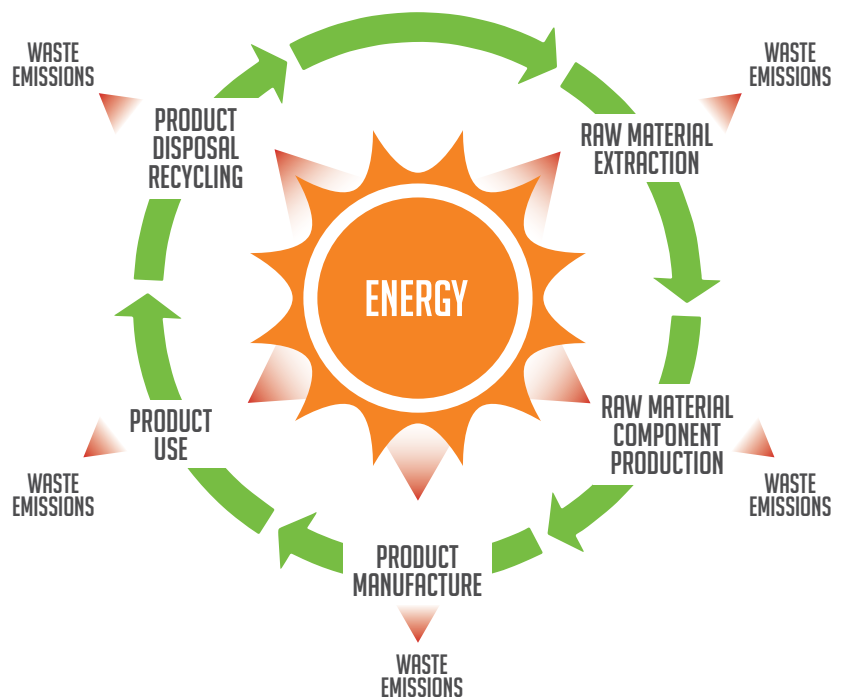
The industry's understanding of manufacturing's environmental impact has become more sophisticated. It's not just about what comes out of smokestacks and sewer pipes. The impacts range from securing the resources and the amount of energy used in the manufacturing process to the ultimate disposition of 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 Corp., 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 SPRINKLER SYSTEMS  
EMERGED AS A MUCH STRONGER CHOICE  
FOR AN ENVIRONMENTALLY FRIENDLY FIRE  
SPRINKLER SOLUTION.”**

– Michael Collins, technical director at Environmental Resources Management

# BLAZEMASTER® BETTER FOR THE ENVIRONMENT

Lubrizol believes the more we know about the environmental impact of BlazeMaster® Pipe & 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.

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

The environmental performance gap between BlazeMaster Pipe & 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.

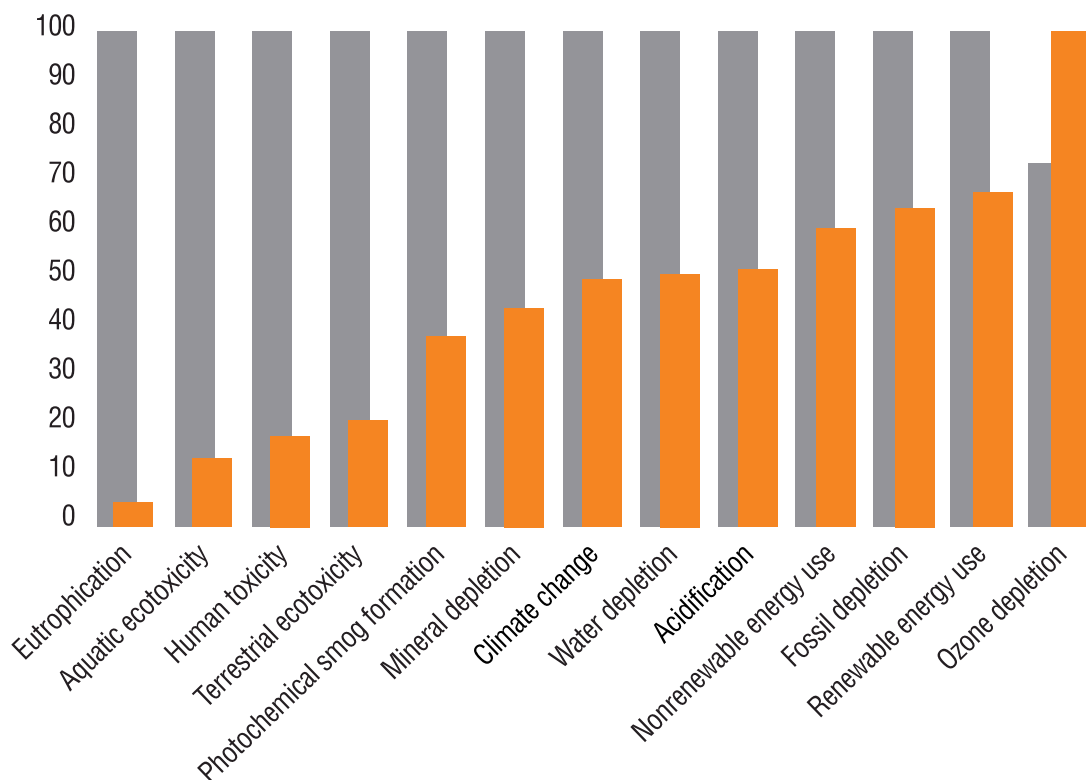
Currently, CPVC can be recycled as PVC piping or window profiles. Piping material can be collected on the jobsite by a specialized recycling firm (country specific) and ground into pellets and granules which in turn can be mixed into different applications such as:

- Floor fillings
- Floor coatings
- Cable Trays
- Speed Bumps
- Car Mats

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

■ BlazeMaster® Fire Sprinkler System   ■ Steel Piping System



# BLAZEMASTER® AND LEED

BlazeMaster® Fire Sprinkler Systems can help buildings earn LEED® certification. If you wish to obtain LEED, please contact a piping consultant at 855.735.1431 for a copy of the BlazeMaster LCA.

## Make the Right Call

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



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**Lubrizol**

Visit **blazemaster.com**  
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with a piping systems consultant.

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