

HOW CAN PIPING SYSTEM DESIGN IMPACT LEED CREDITS AND CERTIFICATION?

MAKE YOUR PIPING SYSTEMS WORK TOWARD GAINING LEED CREDITS

- Piping systems make an important contribution to the environmental impacts of building projects
- Life Cycle Assessments (LCAs) are the best way to evaluate environmental impacts.
- The U.S. Green Building Council's LEED® system is one of several approaches currently available for evaluating the environmental profile of a new building design.
- New LEED® certification methods reward the use of products that have been subjected to an LCA.

Demonstrating Responsible Decision-Making

What is the impact of copper pipe versus CPVC pipe and fittings on climate change? How about ozone depletion or acidification? To understand all of the environmental impacts of a product, all material and energy inputs and outputs throughout the life cycle of that product must be accounted for. This is called an environmental life cycle assessment or "LCA." In recent years a community of LCA experts has emerged, and generally accepted principles for the conduct of LCAs have been established. Detailed ISO standards exist for the execution and review of LCAs.

When conducting an LCA, experts consider each step in a product's production, use and disposal. Each life cycle phase is evaluated for its impacts on many different areas of concern including, but not limited to:

- Climate change
- Ozone depletion
- Human toxicity
- Photochemical oxidant formation
- Acidification
- Freshwater/marine eutrophication
- Freshwater/marine ecotoxicity
- Water/metal/fossil resource depletion

Incorporating LCAs Into Product Selection Processes

The LCA is a valuable source of information when it comes to evaluating different building products. The knowledge gained from this "cradle to grave" analysis can help product specifiers weigh different competing environmental impacts.

By making life cycle information available, you can better evaluate your options and can make products such as CPVC part of an overall building materials strategy that is environmentally, economically and socially responsible.

How LCAs Can Allow Fair Comparisons Of Materials

Not all LCAs are created equal; a credible LCA must be ISO compliant at a minimum. The best quality LCAs are ISO compliant and peer reviewed.



Once the credibility of the LCA is determined for a given material, you can compare the study to credible LCAs of other materials. Pay close attention to the scope statements of the LCAs to understand what has been included and what has been excluded from the assessments. Be sure to note the functional units from which the environmental performance has been measured. Make sure the comparison is apples to apples.

A transparent LCA for pipe will base the impacts on a length of pipe and will identify the diameters that were evaluated. The FlowGuard Gold CPVC LCA is based on 1000-foot increments of pipe and fittings to enable simple and transparent comparisons.

Using LCAs To Garner LEED® Credits

An LCA can help you make informed and responsible decisions and to predict, with greater accuracy, the ramifications of a plan or proposal—while garnering LEED® certification points.

Lubrizonl supports its customers by providing ISO compliant, peer-reviewed LCA documentation that demonstrates the environmental performance profiles for its products.

Customers can include relevant environmental performance documents in their own sustainable building portfolios, garnering important LEED® certification points.

Put Environmental Impact Documentation To Work for You

- Add the CPVC LCA to your firm's sustainable building materials portfolio.
- When specifying CPVC, include the LCA and submit it to your project's LEED® reviewer.

To learn more about how FlowGuard Gold can help you gain LEED credits, view the LCA and more on <http://www.flowguardgold.com/health-and-environment/environmental-performance-transparency/>.

