



CARBON FOOTPRINT

SHAPE A MORE SUSTAINABLE FUTURE

Introduction: A Life Cycle Assessment (LCA).

Reducing carbon footprint is a critical component of corporate sustainability programs. Property and facility managers/owners, architects, utilities and government regulators are looking beyond simple payback and energy savings. Products must also be carbon neutral. To be carbon neutral, greenhouse gas (GHG) emissions resulting from a products manufacturing process and distribution must be offset by energy savings and reductions in GHG emissions from the products used.

What is a 'Carbon Footprint'?

Carbon footprint is a term that is commonly used to describe the amount of GHG emissions caused by a particular activity or entity. To calculate a carbon footprint, emissions of an individual GHG is converted to the measurement of carbon dioxide equivalents (CO₂-E), using the inter-governmental panel on climate change (IPCC) and 100 year global warming potential (GWP) factors. This allows the potential effect on climate change from different activities to be evaluated on a common basis.

What is a Life Cycle Assessment (LCA)?

A Life Cycle Assessment (LCA) is a comprehensive study to assess a product's cumulative environmental impact associated with all stages of a products life from 'cradle-to-grave'.

A Life Cycle Assessment (LCA) must not be confused with an 'environmental compliance'.

Case in point: a manufacturer may claim to reduce a buildings carbon footprint by up to 40%, but doesn't mention the resulting resources consumed in production and/or of the disposal issues.

Why does a company need a Life Cycle Assessment (LCA)?

Life Cycle Assessment (LCA) methods are used to evaluate the life cycle carbon footprint of a product. In this case architectural window film distributed by MEP Films and manufactured by Performance Films, a division of Solutia. The result of an Life Cycle Assessment (LCA), provides a manufacturer and material suppliers with information to assist in reducing their respective life cycle GHG emissions. The study also informs consumers of the GHG emissions associated with the product. Additionally, companies are using results of these studies to make operating, manufacturing and supply chain decisions, as well as decisions for purchasing renewable energy certificates and/or carbon offsets. A Life Cycle Assessment (LCA) is a crucial first step in taking carbon out of the system because it provides a baseline measurement and helps identify areas for improvement.

The vision is to be a leader in the environmentally sustainable practices and life cycle assessments in order to provide the tools to achieve that goal. Performance Films/Solutia, at the end of 2010, completed an LCA to determine the environmental impact of its products life cycle. The study was completed by a third party independent company - Harmony Environmental LLC - and peer reviewed and consistent with International Standards Organisation (ISO) standards.



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