Interface®

Carbon FAQs

The science of sustainability can seem complicated. But one fact is plain: the planet is warming at an alarming rate. It is crucial that we're clear about the meaning of important sustainability concepts – to help the world understand how we can take positive action and redefine our relationship with carbon.

This document defines key terms relating to our work at Interface® and answers common questions we're asked about carbon and sustainability.

Interface®

Carbon

What do we mean by "Carbon"?

We use the term Carbon as a shorthand reference to all greenhouse gases (GHG), or carbon dioxide (CO_2) equivalents. Carbon represents all Global Warming Potential (GWP), measured in carbon dioxide (CO_2) equivalents because CO_2 is not the only Greenhouse Gas (GHG) that contributes to global climate change. For these calculations, Interface converts all GHGs to CO_2 equivalents based on each CO_2 equivalent's radiative forcing effects over one hundred years.

In our discussions about GWP from all GHG emissions expressed in CO_2 equivalents, we sometimes shorten that to "carbon", "carbon footprint", "carbon dioxide", "CO_2", or "CO_2 equivalents". CO_2 is the chemical formula for carbon dioxide, which is a molecule that contains one carbon atom and two oxygen atoms.

What are Embodied Carbon and Operational Carbon, and how are they measured?

The carbon footprint of products is separated into two stages, Embodied Carbon and Operational Carbon. Embodied Carbon is the carbon footprint of the product from raw material creation, growth and extraction (the cradle) through processing until it is packaged and ready to be shipped from the factory (thus we sometimes use the term "cradle to gate"). Operational Carbon means the carbon footprint of everything that happens after it leaves Interface, including shipment, customer use, and end of life.

In Life Cycle Assessment (LCA) terminology these terms correlate to "cradle-to-gate" and "gate-to grave" (or gate-to-end of life), respectively. Note that in the field of LCA, Operational Carbon typically refers to only the carbon emissions that happen during the use of the product and does not include disposal at end of life. For simplicity, we have expanded Operational Carbon to include everything after the product leaves our factory.

Carbon Negative

Some of our products' Embodied Carbon (cradle-to-gate) will be Carbon Negative. These products are launching as part of the Embodied Beauty™ Collection. The products which are Carbon Negative in the collection are Zen Stitch, Tokyo Texture and Shishu Stitch. When we say Carbon Negative, we mean that the GWP emissions are net negative. Net negative means that more GHGs have been removed from the atmosphere than have been emitted into the atmosphere during the creation of the product.

As mentioned above, Embodied Carbon is measured using a cradle-to-gate LCA. LCA is a tool that calculates the GWP by measuring the inputs and outputs from all aspects of a product's production, including raw material extraction like petroleum and mineral mining processes, conversion of feedstocks into chemicals, transport of materials to factories, energy production and emissions used to fabricate the product, packaging, production wastes and their disposal. All the inputs and outputs of GHGs that happen from cradle-to-gate are converted to CO_2 equivalents and then totaled resulting in a net carbon footprint for Embodied Carbon. When the inputs (removals from the environment) of GHGs are greater than the outputs (emissions to the environment), the footprint is a negative value.

Do the Carbon Negative products actively pull carbon out of the atmosphere?

No, the Carbon Negative value is the net of the emissions and removals of carbon that happened during the manufacture of the product. After manufacture, the flooring does not emit nor remove carbon.

How is it possible for products to have a negative Embodied Carbon?

Some materials are made from atmospheric carbon either through photosynthesis or direct air capture of CO_2 and other GHGs, so they remove carbon from the atmosphere. If the emissions of carbon from the handling, transport, and processing the materials are less than the carbon they have removed from the atmosphere, the result is net negative Embodied Carbon.

Are some Interface backings Carbon Negative?

All the CQuest™ Backings are made of materials that are net Carbon Negative. While the CQuest Backings may use Carbon Negative materials, the products with these backings are not necessarily Carbon Negative. The first Carbon Negative products to be introduced will be: Zen Stitch, Tokyo Texture, and Shishu Stitch on CQuest™ BioX backing.

Carbon Neutral

But isn't all Interface flooring Carbon Neutral?

Yes, the Embodied Carbon, whether positive or negative, is only part of the footprint. For the full life cycle assessment (LCA), Interfaces combines Embodied Carbon with Operational Carbon. Even if for some products the Embodied Carbon is net negative, the total life cycle still has a carbon footprint. To compensate for that remaining carbon footprint, we purchase and retire verified carbon offsets to make all Interface flooring Carbon Neutral throughout its entire life cycle. When we introduce Carbon Negative products, they will be Carbon Negative from cradle-to-gate, but the Operational Carbon will be offset through the Carbon Neutral Floors program keeping the entire life cycle of the product Carbon Neutral.