

NuPAGE[®] Novex[®] Precast Gels



Green Benefits

- No expanded polystyrene (EPS) coolers
- Less energy to produce
- Less waste disposal

Introduction

In order to minimize the adverse environmental impact of our packaging, Life Technologies investigated the feasibility of shipping NuPAGE[®] Novex[®] gel products without the insulating and protective properties of an EPS cooler. We have found that by adding minimal paper cushioning to a corrugate container, the NuPAGE[®] gels—which are stable at room temperature for at least 12 months—can be shipped without impact on product quality and lifespan.

Through these actions, we are reducing packaging, thereby reducing energy and fuel use, greenhouse gas emissions, and waste at end-of-life.

Product Description

The NuPAGE[®] precast gel system is a revolutionary polyacrylamide gel system for high-performance gel electrophoresis. It consists of NuPAGE[®] Bis-Tris precast gels (for small- to mid-size molecular weight proteins), NuPAGE[®] Tris-acetate gels (for larger proteins), and specially optimized buffers. The unique formulation and low operating pH during electrophoresis offer significant advantages over other gel systems. While there are subtle differences between the chemistries of Bis-Tris and Tris-acetate gels, both provide a much lower-pH environment than traditional SDS-PAGE systems. The advantages of lower pH include sharper band resolution, longer shelf life, and higher accuracy of results.

Green Features

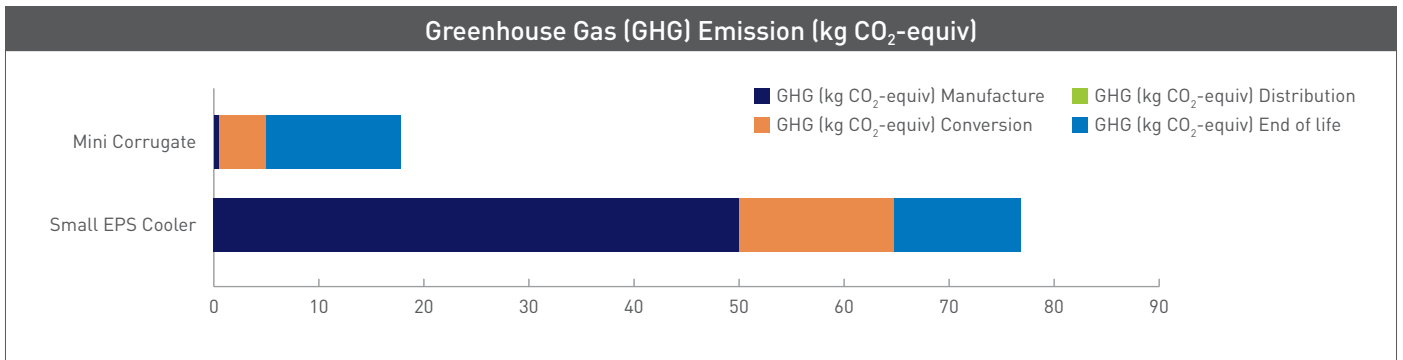
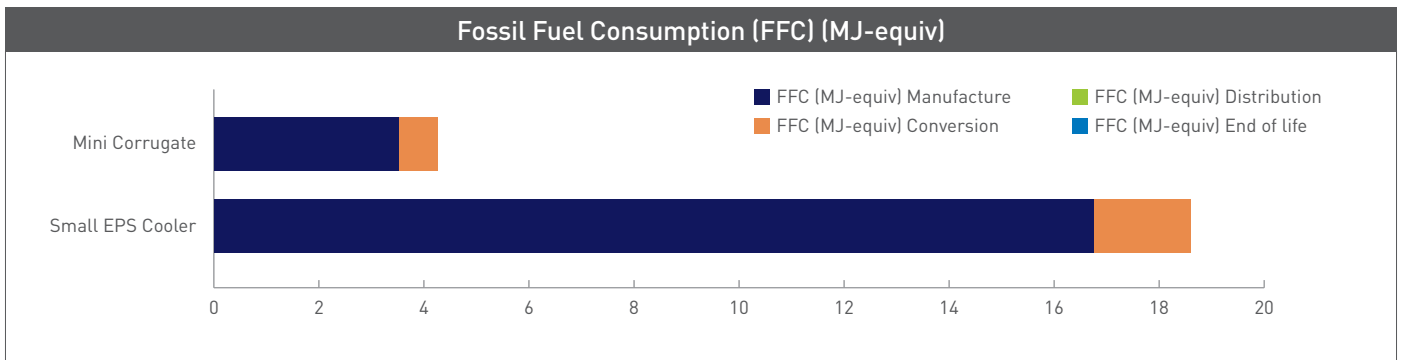
Sustainable Packaging

Life Technologies has been systematically evaluating novel ways to minimize the impact of our packaging. One way we can do this is to ship NuPAGE® Novex® gels in a recyclable corrugate container instead of an EPS cooler. The EPS cooler is made from a non-renewable raw material (derived from fossil fuels), while the corrugate is made of paper with approximately 12% recycled content.

The annual carbon footprint to manufacture EPS and convert it into coolers for our NuPAGE® gels is

approximately 35 tons. It takes nearly 116 barrels of crude oil equivalents and 85 MWh of power, annually, to make the EPS coolers needed to ship Life Technologies NuPAGE® gel products. These energy savings are equivalent to the energy required to power nearly 100 houses for a month.¹

Since NuPAGE® gels have always been stable at room temperature, shipping in EPS coolers is not required for product quality and stability. So by “going ambient” with the shipping containers, Life Technologies will help divert an annual total of 6,600 kg (31,000 ft³) of EPS from landfills and incinerators.¹



Footnotes

1. Data produced using Compass® Comparative Packaging Assessment online software tool (v. 1.1) (<https://www.design-compass.org/>)

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Headquarters

5791 Van Allen Way | Carlsbad, CA 92008 USA | Phone +1.760.603.7200 | Toll Free in the USA 800.955.6288

www.lifetechnologies.com

