Labtainer Pro BioProcess Containers: comparison to original packaging

Introduction
We are committed to designing our products with the environment in mind—it’s part of how we enable our customers to make the world healthier, cleaner, and safer. This fact sheet provides the rationale behind the environmental claim that the Thermo Scientific™ Labtainer™ Pro BioProcess Container (BPC) utilizes sustainable packaging principles to reduce packaging by 24% compared with the previous packaging design, without any impact on product integrity. The corrugated cardboard packaging of the Labtainer Pro BPC uses less material than the original, thereby requiring fewer resources, emitting less greenhouse gas during transit, and generating less packaging waste.

Product description
The Labtainer Pro BPC (Figure 1) is a next-generation bioprocess container providing improved performance, reliability, and quality assurance. As technology and innovation advance within the bioproduction industry, single-use technologies have also made considerable progress in the areas of drug and vaccine manufacturing. Some of the well-established and recognized advantages of single-use systems include lower costs, reduced risk of contamination, decreased footprint in the facility, increased flexibility, and enhanced production throughput and efficiency with less cleanup. Collectively, this results in quicker turnaround and improved production capabilities [1].

Labtainer Pro BPC products use the same reliable films as existing Thermo Scientific™ BPCs, providing consistent contact material throughout the workflow. Along with continually striving to offer the best-performing products in the industry, we endeavor to provide a superior user experience with enhancements to packaging, handling, and ergonomics.

Green benefits
- Sustainable packaging: 24% less packaging

Figure 1. The Labtainer Pro BPC.
Green features

Sustainable packaging

The upgraded outer packaging of the Labtainer Pro BPC has been developed to reduce the corrugated cardboard material used on the top of the box while preventing damage due to unpacking with sharps or other tools. The updated packaging features easy-peel tape on the box and opens on the shorter side (Figure 2).

By switching to this new design, we were able to reduce packaging material by 640 g per box—a 24% reduction compared to the original corrugated cardboard boxes (Table 1). This translates to less raw material used, and less fuel consumed with less greenhouse gas emitted during transit for distribution of the packaging material. For every 1,000 boxes shipped, this reduction represents 0.58 metric tons of CO₂ equivalents, or greenhouse gas emissions from driving 1,440 miles in an average passenger car [2]. It also means less waste for our customers to manage in their labs, supporting waste reduction and sustainability efforts.

Table 1. Comparison of updated and original corrugated cardboard box weights for Labtainer Pro BPCs.

<table>
<thead>
<tr>
<th>Container</th>
<th>Weight (g)</th>
<th>Packaging reduction</th>
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</thead>
<tbody>
<tr>
<td>Labtainer Pro BPC corrugated cardboard box</td>
<td>2,040</td>
<td>24%</td>
</tr>
<tr>
<td>Original corrugated cardboard box</td>
<td>2,680</td>
<td></td>
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</tbody>
</table>

Designing the Labtainer Pro BPC to reduce packaging material while retaining the same product integrity is a win for our customers, our company, and our planet.

References

Figure 2. Labtainer Pro BPC outer corrugated cardboard box with easy-peel tape.