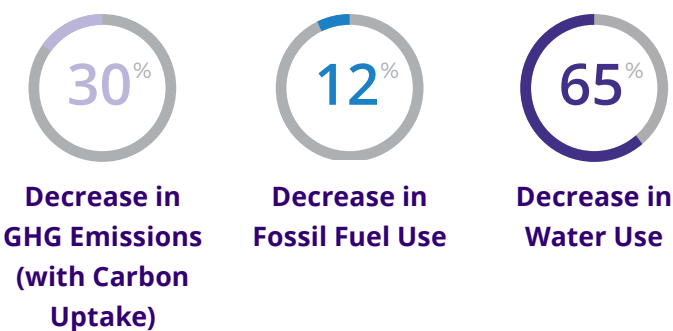


Comparing KoolTemp® GTS Extreme with CCT Advanced™ SU Extended

LIFE CYCLE ASSESSMENT (LCA)

Determining the environmental impact of shipping systems can be challenging to quantify. The origin, use, transport, and disposal of various components all must be considered to calculate the full impact. To understand the real environmental benefits of our shippers, Cold Chain Technologies (CCT) collaborated with Trayak, a sustainability consulting and software company, to conduct a Life Cycle Assessment (LCA) comparing CCT's single use shippers KoolTemp® GTS Extreme (Extreme) and CCT Advanced™ SU Extended (CCT Advanced). Trayak used their EcolImpact-COMPASS software to model CCT's shippers and conduct the LCA according to the requirements of International Standard ISO 14044:2006. This work was then further reviewed by a 3rd party to confirm its conformance to relevant ISO standards.

The results showed that the CCT Advanced shipper had lower environmental impact than the comparable Extreme shipper, including indicators such as Fossil Fuel Use, Greenhouse Gas (GHG) Emissions, and Water Use. Ultimately, the lower environmental impact is due to the change in materials used for the CCT Advanced shipper.



This LCA report shows that the sustainable alternative CCT Advanced has a lower environmental impact than

the Extreme shipper across the studied environmental indicators, except for mineral resource use. The highest mineral resource use is attributed to the six vacuum insulated panels (VIP) of the CCT Advanced shipper. The largest improvements were seen in the shipper design itself with the material change from Polyurethane (PUR) based Extreme to the VIP and corrugate based CCT Advanced.

Contact us to see how CCT's parcel shippers can help your business unlock your sustainability goals.

**All values and figures presented here are taken from our LCA report prepared May 1, 2023. A copy of the report containing the study and the third-party attestation of ISO compliance is available upon request.*



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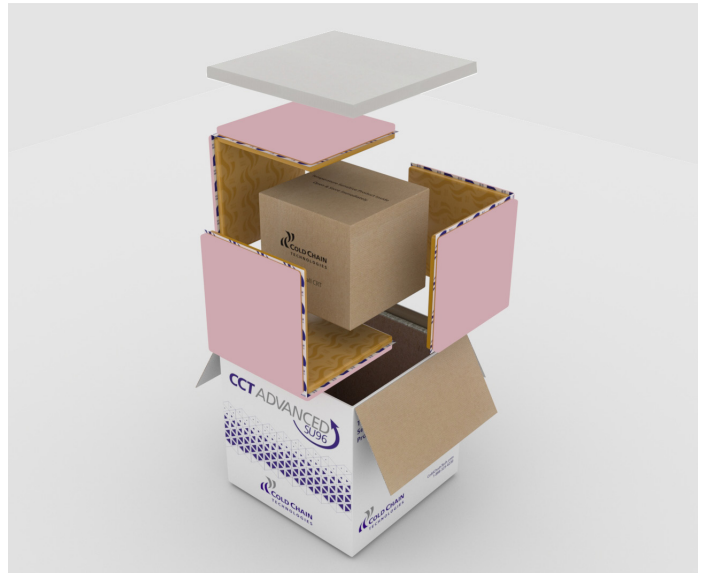
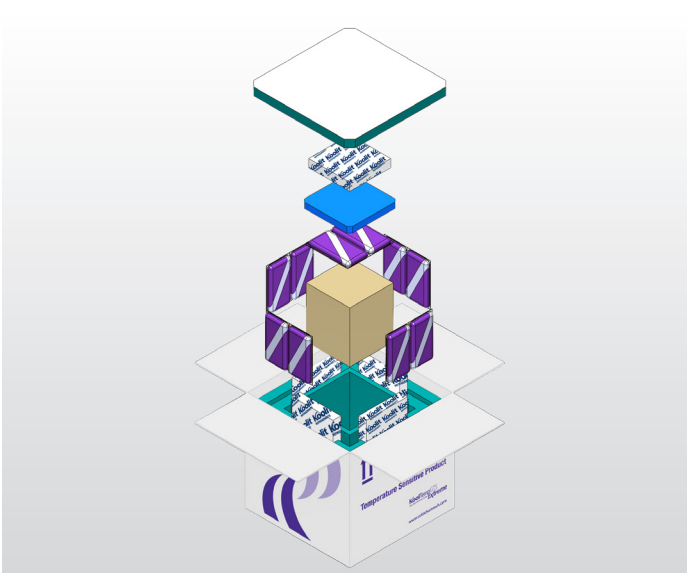


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Side-by-side picture of the two product lines compared in the report. Specifically, our KoolTemp® GTS Extreme (left) and CCT Advanced™ SU Extended (right) shippers were modeled.

GHG Emissions (with Carbon Uptake)

Extreme



CCT Advanced



10 20 30 40

● MATERIAL ● MANUFACTURING ● TRANSPORTATION ● END OF LIFE

Detailed look into the GHG Emissions (with Carbon Uptake) by lifecycle phases.

Fossil Fuel Use

Extreme



CCT Advanced



100 200 300 400 500 600

● MATERIAL ● MANUFACTURING ● TRANSPORTATION ● END OF LIFE

Detailed look into the Fossil Fuel Use by lifecycle phases.



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Water Use

Extreme



CCT Advanced



5

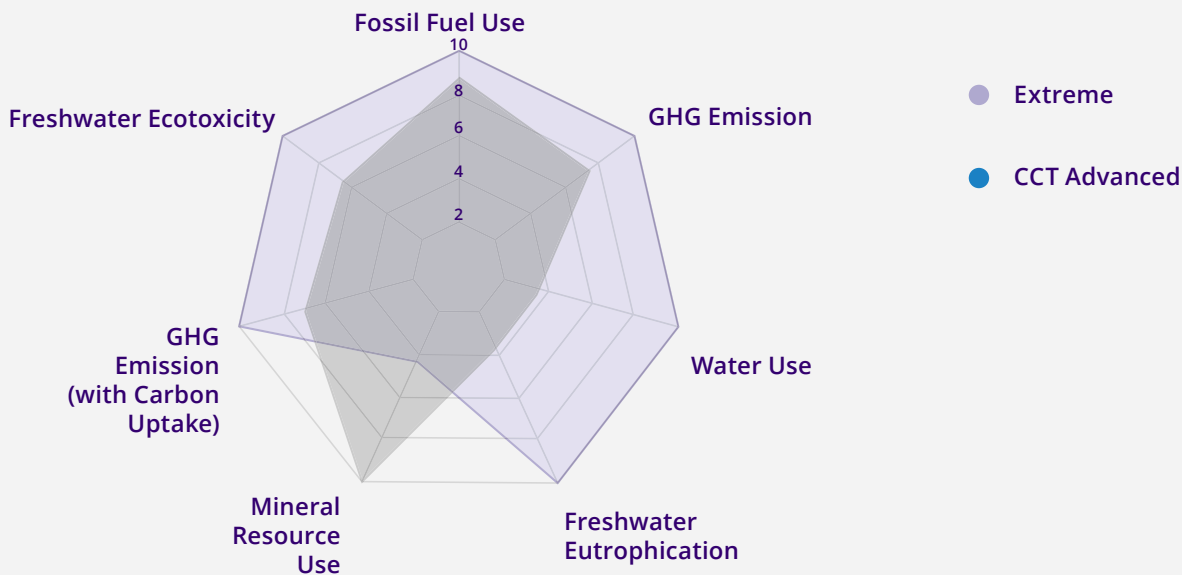
10

15

● MATERIAL ● MANUFACTURING ● TRANSPORTATION ● END OF LIFE

Overview of LCA Results for Shipper Comparison.

Overview of LCA Results for Short Distance Comparison



This spider web chart shows the LCA comparison with the 7 COMPASS indicators. The shippers are denoted in a different colored area in the spider web chart. For each indicator, the points closer to the center represent the better or lower environmental impact. The CCT Advanced shipper has the lower environmental impact across all indicators, except for mineral resource use.



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