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# CASE STUDY

Leading vehicle manufacturer increases packaging sustainability.

General Motors works with ORBIS to increase recycled content in bulk shipping containers.



## BACKGROUND

General Motors (GM) is a vehicle manufacturer home to the Chevrolet, Buick, GMC and Cadillac automobile brands. Headquartered in Detroit, GM is the largest American automobile manufacturer and one of the world's largest automakers.

## PACKAGING APPLICATION

After commencing a search for opportunities to implement more sustainable practices throughout its supply chain, GM sought out assistance from their suppliers, including ORBIS Corporation, the market leader in reusable plastic packaging solutions, to increase the usage of recycled content in its collapsible bulk containers. GM uses these bins to transport various vehicle parts from its supply base to the assembly facilities.

## PACKAGING CHALLENGE

GM aimed to reduce waste and carbon emissions in its operations. Currently, the company purchases containers made mainly from virgin materials.

Although the packaging is recyclable at the end of its life, GM sought to enhance the recycled content of the containers, supporting the circular economy, while also reducing waste and carbon emissions.





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## THE SOLUTION

GM tasked ORBIS with finding a color for the base of its bulk containers that would allow for incorporating more recycled content without compromising its supply-chain efficiency while ensuring handlers could still properly identify the containers. But an all-black construction raised concerns as to how GM’s handlers would be able to distinguish their containers from others.

To make sure GM would still be able to identify its containers correctly, ORBIS created different-colored placards to be placed on the containers, ensuring handlers across GM facilities could continue to identify containers and their contents properly to support their visual management strategy.

*“We realized that we could help make a positive impact on the environment by incorporating recycled content into new areas of our containers,” said Joseph Hilliard, Supervisor, PFEP Packaging and Data Management and GPSC - Global Supply Chain at General Motors. “ORBIS helped us meaningfully increase the amount of recycled content in our reusable bulk containers and provided a solution to keep our container identification process running smoothly.”*

## THE RESULTS

Repurposing recycled plastic into new products supports the circular economy concept. Additionally, the need for virgin resin is diminished, reducing the use of new fossil fuels.

The quality of this material still meets expectations for durability with this higher quantity of recycled content.

*“ORBIS supports the circular economy by manufacturing solutions that create a continuous flow in supply chain,” said Breanna Herbert, Product Manager and Sustainability Lead at ORBIS. “Our work with GM shows that one change has the power to positively impact our world.”*

Bins are reused for many trips within the supply chain. At the end of their useful service life, they can be recovered and reprocessed into new products, without ever entering the solid waste stream through the Recycle with ORBIS program.

GM previously used recycled content only in the walls of its bulk bins. However, after collaborating with ORBIS, GM has now started including recycled content in the base of the bulk bin as well, as shown in the photo above. This change means that recycled content now makes up roughly half of the weight of the bulk bin. As a result, GM is expected, on average, to double the amount of recycled content used in these containers. In the future, GM plans to convert its primary containers to all-black bins to further increase its incorporation of recycled content.

*“This is just one step towards promoting a world that is safer, better and more sustainable,” said Hilliard. “We look forward to collaborating with ORBIS in the future to further increase our supply-chain sustainability, minimize waste and have a positive environmental impact.”*

**Interested in learning more? Connect with ORBIS at [www.orbiscorporation.com](http://www.orbiscorporation.com)**