



## **ECO THERMOPLASTIC DUCTING**

### **SUSTAINABLE FEATURES**



WEIGHT  
SAVING



CO<sub>2</sub>  
SAVING



RECYCLABLE  
MATERIAL

### **CHARACTERISTICS**

As the market leader in air distribution in aircraft cabins, we are constantly expanding our technology portfolio. The combination of innovative materials and a special joining method developed by Diehl Aviation guarantees a new level of efficiency and weight reduction. Air Ducts made of thermoplastic glass fiber reinforced sheet offer many benefits in lightweight design, manufacturing, and sustainability. The technologies not only make faster customization processes, lower costs, and weight reduction possible, it is above all ecologically efficient.

## BENEFITS

- Weight reduction
- Reduced fuel consumption due to lower weight
- Very fast manufacturing
- Lower manufacturing cost
- Improved recycling through the use of thermoplastic material

## SUSTAINABLE FEATURES\*



WEIGHT  
SAVING

Compared to the state-of-the-art duroplastic technology for air ducts, the thermoplastic parts are approximately 34% lighter. This adds up to a weight saving of 2.2 kg per single-aisle aircraft.



CO<sub>2</sub>  
SAVING

Due to the weight saving we can estimate a fuel saving of 0.4 tons per aircraft per year. This fuel saving can be converted into a saving of 1.4 tons of CO<sub>2</sub> emissions per aircraft per year.\*\*



RECYCLABLE  
MATERIAL

The innovative air ducts produced from thermoplastic material are easily recyclable as they are designed as nearly mono-material parts. The material itself can be chopped and then reused. First reuse application within the Diehl product portfolio is currently under development.

Diehl Aviation aims to contribute to the industry's goal of achieving net-zero aviation by utilizing lightweight, recycled, or bio-based materials to optimize resource consumption and reduce CO<sub>2</sub> emissions. These initiatives are at the core of the ECO efficiency product range.

\*More Infos about the Sustainability Features you can find here:  
<https://www.diehl.com/aviation-highlights/en/eco-efficiency/>

\*\* estimated for a current generation single aisle aircraft e.g. A321, operating on medium range missions, e.g. Paris-Istanbul, with average operating hours of 3600 per year