

**d-flexx**

**Carbon Dioxide Footprint**

## d-flexx safety barriers ensure a safe work environment with a relative low climate and environmental footprint

Concerns over climate change and greenhouse gases have increased interest in estimating the total amount of emissions produced during the different stages in the life cycle of d-flexx products – i.e., processing, transportation, and manufacturing.

### Recyclable



d-flexx is mostly made of polyethylene variant (PE) which has outstanding physical performance for our purposes. The material falls under resin identification code 2 which also means it has excellent recycling properties. PE is a widely used, versatile polymer and can be easily recycled and re-used for different applications.

### d-flexx Charlie carbon dioxide footprint

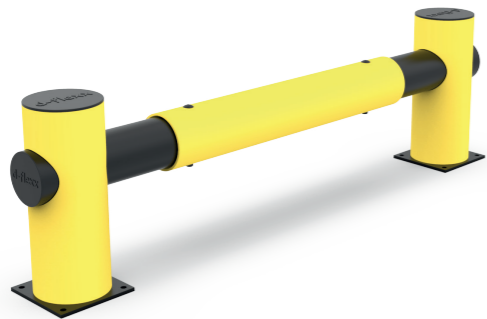
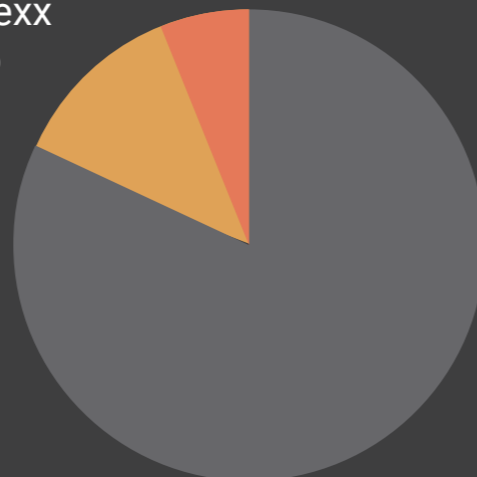


Photo: Charlie

**72kg CO2**

To ensure the best possible collision protection all d-flexx materials must meet the highest quality standards to achieve the best mechanical properties. In the recycling process, the polymer material loses the excellent, desired mechanical properties. This is the reason why the critical components in the d-flexx range only consist of the highest quality virgin material. In the chart an estimation of the carbon dioxide footprint of the Charlie barrier can be seen.



Transport Manufacturing Raw Material

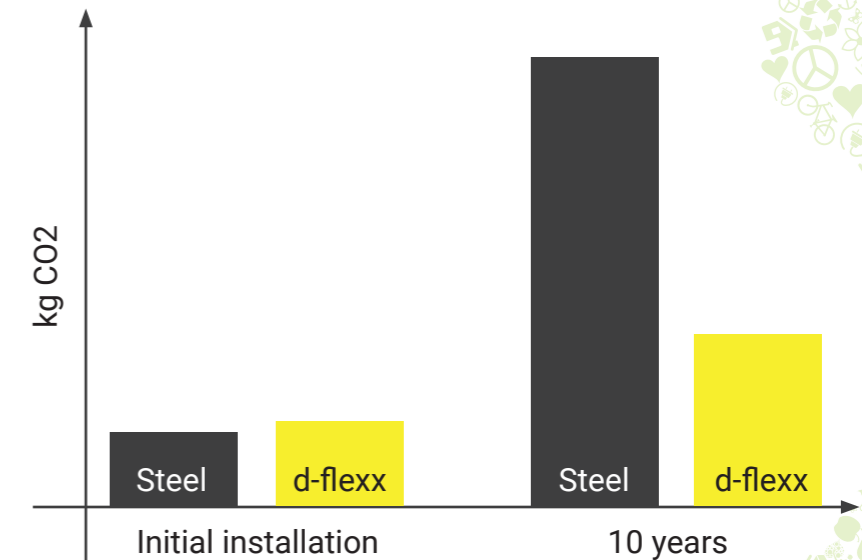
## d-flexx Delta compared to similar steel barrier

The flexibility and strength of the PE used for d-flexx ensures that the energy of an impact can be absorbed several times while maintaining impact resistance, which significantly increases the life expectancy of our barriers. The CO2 footprint over the lifetime is significantly lower than that of steel. It is estimated that steel barriers need to be replaced every second year, whereas d-flexx needs to be replaced every tenth year - assuming proper use and impact.



Photo: Delta

Photo: Steel barrier



Graph: CO2 footprint from a d-flexx Delta barrier compared to a similar steel barrier over time

### d-flexx Alfa compared to steel

Due to low weight and energy cost to manufacturing, the production of one Alfa rackguard releases 2,28 kg CO2 to the atmosphere where its counterpart steel releases 13,78 kg CO2. We investigate to reduce it even further as we strive to reduce our carbon dioxide footprint to zero.



**2,28kg CO2**



**13,78kg CO2**



d-flexx



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