

Less is more

BODE Chemie in Hamburg, Germany, has optimised the production of its plastic bottles, thus making an active contribution to climate protection. Modifications to the manufacturing process of the polyethylene (PE) bottles could significantly cut down the demand for plastic and therefore the consumption of raw materials.



Less bottle weight

By reducing the weight of many of our bottles for Sterillium products, i.e. 475- ml Sterillium® Comfort Gel, BODE Chemie is able to save more than 83 tons of resources for the production of plastics. This equals a reduction in bottle weight by an average of 25 per cent – without compromising bottle durability and stability.

Less raw material consumption

Thanks to the modifications to its production BODE Chemie conserves valuable oil resources and, additionally, improves the ecological balance: less consumption means less raw material deliveries, which decreases the fuel use. And the lighter bottles reduce the consumption as well: 100 kilogrammes less total weight save 5 grams of CO₂.

Greater protection of the environment and climate

With the reductions in transportation and material consumption BODE Chemie makes an important contribution to climate protection. Additionally, the production of thinner bottles decreases energy consumption and consequently CO₂ emissions. And last but not least: thinner bottles also mean less impact on the environment as they generate less waste.

Do you know why ...

- **the oil consumption decreases as well when the PE bottle weight is reduced?**
Our bottles are made of the thermoplastic polymer polyethylene (PE). The synthetic production uses ethylene which is derived from crude oil and natural gas.
- **a reduced bottle weight also means lower fuel use?**
Less weight cuts down on fuel consumption during transportation. The general rule of thumb is: 100 kg less weight bring down fuel use by up to 0.5 litres per 100 km.
- **a decreased fuel consumption leads to less CO₂ emissions?**
Fuel use can directly be converted into an equivalent CO₂ emission. For this, the consumption value is multiplied by the fuel-specific conversion factor (kg/10 l). The conversion factor for diesel is approx. 26.2 kg/10 l, for petrol approx. 23.2 kg /10 l. Assuming a diesel use of 5 l/100 km this makes a CO₂ emission of 131 g/km CO₂ (5 l/100 km x 26.2 kg/10 l).

Lighter bottles – better environmental protection

The cutback in the packaging weight saves 83 tons of raw materials each year. And thus reduces the strain on our environment and climate.



Supported by comprehensive proofs of efficacy and scientific-based research and development, our hygiene and disinfection products ensure best possible quality.

Research for infection prevention. www.bode-science-center.de

