

RESOURCE SAVINGS



BALEAR DE LIMPIEZA

used **green care** PROFESSIONAL products for professional cleaning in the period 31 January 2018 - 31 December 2018. We hereby certify the calculated resource savings of plastics, oil, and CO₂ are based on product quantities delivered to the customer.

The calculation was performed by the **green-Effective PERFORMANCE CALCULATOR** on get.wmprof.com

The certified volumes and relative scores are based on Ecolabel and Cradle-to-Cradle® product certifications.

The plastic containers of the products covered by this certificate comprise **75%** recycled material (recyclate ratio). The calculation of the certification has been validated by environmental auditors of INTECHNICA Cert GmbH.

Savings

 **257 kg**
Crude Oil

 **102 kg**
Plastic

 **806 kg**
Carbon Dioxide

Certified Volumes



100%
3,409 litres



61%
2,072 litres



For further information please contact us at info.professional@werner-mertz.com or visit wmprof.com to learn more about our range of *green care* PROFESSIONAL products.

Explanation of calculation

The calculation was performed by the *green-Effective Performance Calculator* on get.wmprof.com and is based on up to 100% recycled plastic packaging, formulations with natural ingredients, use of 100% renewable energies in production and with own water treatment.

Each product adds its own savings result, based on its recycled polymer packaging mass and the mass of non-petrochemical ingredients. The calculation method is attached to article list and this document.

Packaging:

All calculations are based on the real packaging mass. Any recycle used in packaging reduces the amount of crude oil needed for virgin material.

We use a conversion factor of 1:1 from plastics to crude oil for transparency reasons.

Real savings may be higher:

Literature values for saved fossil resources for PE, PP and PET are all above 1.2 kg / kg and ranges may go up to 1.9 kg fossil resources per kg plastics. (based on W.A.R.M. model 14 by US Environmental Protection Agency, EPA).

The burning of the calculated amount of crude oil multiplied with 3.14 leads to carbon dioxide emissions and savings.

Formulations:

Here, we also use a conversion factor 1:1 for carbon used in our formulations: renewable sources vs the equivalent of carbon in petrochemicals, which are based on crude oil.

Although the actual process yield for each substance is typically much lower than 100% (the input amount of crude oil having a higher factor than 1), we use it here to avoid misunderstandings.

We convert mass of the carbon atoms into mass of crude oil by a factor of 1.17 to correct for the oxygen content.

Conversion into eCO₂:

A typical yield of 1 barrel of crude oil consists of:

1. Gasoline: 44.1% (70.12 litres)
2. Distillate fuel oil: 20.8% (33.07 litres)
3. Kerosene-type jet fuel: 9.3% (14.79 litres)
4. Residual fuel oil: 5.2% (8.27 litres)**

Percentage values from Riegel's Handbook of Industrial Chemistry, 2003 edition (Page 515, Fig. 15.6). Litre values based upon conversion rate of 159 litres per barrel.

Recycling cycles:

We calculate with 1 recycling cycle even if recycle is again recyclable. However, with a lack of widespread processes the incoming flow of recycle cannot be traced for higher recycling cycles.