

# EcoDesign Concept

## We assume responsibility



Plastic is currently the biggest enemy of our global seas and marine life. Due to public interest in this subject, pressure on all market players is mounting to find new solutions for a circular economy. Future generations must be able to find a healthy environment. Therefore, measures to protect the environment and resources are part of our values and corporate strategy. Here you can discover what we as a company and with our packaging are doing for sustainability:

## Sustainable Tubes






In 2018, the European Union massively tightened the existing guideline for packaging and packaging waste. By 2030, all plastic packaging must be recyclable, of which 55% effectively recycled. Currently, less than 30% of all plastic packaging is collected. A substantial part of plastic waste collected cannot effectively be recycled and, despite being sorted, is burnt.

A quick look at the material flows of packaging shows: In Europe, there are around 80 million tons of plastic waste. Of these, around 20 million tons consist of plastic packaging, of which around 4 million tons are flexible consumer packaging. Of these, only 1 million ton consists of multi-material combinations, which are the biggest challenge in the recycling stream.

Together with the industry, our customers and consumers, we want to achieve the ambitious goals of the EU and thus make a considerable contribution to the circular economy.

We are therefore working intensively on several approaches:

## EcoDesign Concept

					
	Reduced Material	Recycled Content	Renewable Resources	Recycling Friendly	Product Safety
Concept	The less material used for a tube, the less the environmental impact measured in terms of carbon footprint	Our RECYCLED tubes contain up to 80% of recycled, food-grade material.	Our bioplastic solutions offer a much lower carbon footprint compared to conventional plastic tubes.	We are developing new barrier tubes, which are already recyclable, and at the same time we are the first tube manufacturer to join CEFLEX.	Composite materials have the advantage of providing incomparable protection of the product content with relatively little use of materials.
Product	coming soon	<u>RECYCLED</u>	<u>PICEA™</u> <u>Sugarcane</u>	<u>PE tubes</u>	<u>Polyfoil® tubes</u>



### Less use of materials

The less material used for a tube, the less the environmental impact measured in terms of carbon footprint. Tubes are generally lighter than plastic bottles and present a weight advantage for the same volume. Thin-walled tubes are standard in our company. Yet there are still savings potentials with the caps and shoulder geometry. These need to be applied, without reducing the value and barriers of a tube.



## Use of recycled materials

Our RECYCLED tubes contain up to 80% of recycled, food-grade material. For the tube body and the shoulder, we use 50% rHDPE, for example, from recycled milk bottles. 25% consists of rLDPE from the laminate production of a long-standing supplier. The tube cap is made entirely of rPP. One of the material sources is used ropes from deep-sea fishing, thus giving them a second life. With RECYCLED, you save on new material and plastic joins the cycle rather than the environment.

---



## Use of renewable raw materials

Our bioplastic solutions offer a much lower carbon footprint compared to conventional plastic tubes. With the PICEA™ tube, we go the extra mile: It contains a wood-bioplastic combination exclusively made for us with 10% spruce sawdust from Germany. This wood has an even lower carbon emission balance per kilogram than residual bioplastic, making this tube an absolute CO<sub>2</sub> star. Our bioplastic tubes meet Ecocert and Cosmos requirements.

---



## Recycling-friendly design

Tubes from mono-materials such as PE and PP are generally recyclable. However, in many countries, the corresponding recycling stream is lacking for consumers. The majority ends up in energy generation or in landfills.

The challenge is even greater for multi-layer tubes, like Polyfoil®, for which material sorting processes and facilities exist, but which have not yet been implemented. In Europe, composite materials are not yet collected separately.

For this reason, we are working on two solutions: We are developing new barrier tubes, which are already recyclable, and at the same time we are the first tube manufacturer to join CEFLEX. CEFLEX is a collaborative project involving over 100 companies from the entire value chain of flexible packaging. The aim of CEFLEX is to establish, by 2025, collection, sorting and reprocessing for flexible packaging.



## Less product waste, long-lasting products

Composite materials have the advantage of providing incomparable protection of the product content with relatively little use of materials. They are highly developed and meet regulatory requirements concerning the used raw materials. Through their protective properties, they increase the life of expensive pharmaceutical and cosmetic products. Because insufficiently protected pharmaceutical and cosmetic products could lead to even greater environmental impact compared to the impact of the packaging material itself.

# EcoDesign product specification comparison

**EcoDesign Product Comparison**

**NEOPAC THE TUBE**

	 PCEA™ Wood Tube Made with 100% PCEA	 Sugarcane Tube Made with 100% PCEA	 Recycled Plastic Tube Made with 100% PCEA
<b>Materials / Dimensions</b>			
Dimensions / Volume	14" x 20mm x 12" (330ml)	14" x 20mm x 12" (330ml)	14" x 20mm x 12" (330ml)
Material	PCEA	Sugarcane PE	100% PE
Cap	Green plastic or standard	Green plastic or standard	Green plastic or standard
<b>Quality</b>			
Print Code	✓	✓	✓
Barcode Properties	Barcode on PE tubes Barcode on PE tubes	Barcode on PE tubes Barcode on PE tubes	Barcode on PE tubes Barcode on PE tubes
Certifications	ISO 9001:2015 ISO 14001:2015	ISO 9001:2015 FSC and Carbon	ISO 9001:2015 FSC and Carbon
<b>Sustainability</b>			
Ecological Impact	Renewable Resource	Renewable Resource	Recycled Plastic
Carbon Footprint per tube	14.9 g CO <sub>2</sub> e/tube (14.9 g CO <sub>2</sub> /tube)	14.9 g CO <sub>2</sub> e/tube (14.9 g CO <sub>2</sub> /tube)	14.9 g CO <sub>2</sub> e/tube (14.9 g CO <sub>2</sub> /tube)
Energy Requirements with PE cap	100% PE 100% PE	100% PE 100% PE	100% PE 100% PE
<b>Decoration</b>			
Available Color Options	White, Green, Black, Gold, Silver	White, PE	White, PE, Black, Gold, Silver
Printing Possibilities	Screen UV printing	Screen	Screen
Minimum Print Volume	✓	✓	✓
Label Size	✓	✗	✗

www.neopac.com/ecoDesign