# DESIGNED FOR A CLEANER TOMORROW

# From Bottle To ArmaPET® Eco

Armacell offers a wide range of innovative eco-friendly PET foam solutions based on 100% recycled PET. From a throw-away bottle to lasting value, we are making a difference around the world.

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#### FROM AN EMPTY BOTTLE TO A HIGH-TECH FOAM

The impact of plastic on our global ecosystem is omnipresent. According to the UN Environment Programme, one million plastic drinking bottles are purchased per minute worldwide. Most of these bottles end up polluting soil or seas. Plastic takes hundreds of years to decompose; plastic microparticles now pollute our entire planet.

It is indisputable that single-use plastics are a major eco-challenge. Fortunately, there's a growing awareness among many consumers that the 'make-take-dispose' economy of past decades has to stop. We need a 'reduce-reuse-recycle' model in which plastic waste is a valuable resource that can be used to produce new plastic raw materials and manufacture plastic parts and products.

Armacell has taken such a step by developing a unique recycled PET foam technology that enables PET foam products, such as **ArmaPET Eco**, to be produced entirely based on recycled plastic bottles.

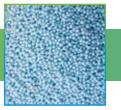
### ARMAPET IN THE ECO CYCLE

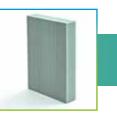
**ArmaPET Eco** is produced using Armacell's unique and patented process technology, which enables the production of PET foam materials **based on 100% recycled PET**, more precisely from recycled beverage bottles.

This is how the conversion takes place: After collection (1), the PET bottles are sorted and then crushed into flakes (2). This is followed by a granulation process (3) and, finally, by production of the **ArmaPET Eco** foam boards (4). In this way, single-use plastic bottles are converted into an eco-friendly structural foam core. After its service phase (5), spanning several decades, **ArmaPET Eco** can also be fully recycled (6).













Instead of having a service life of just a few weeks, single-use plastic bottles become a long-lifetime, high-value material in the economy.

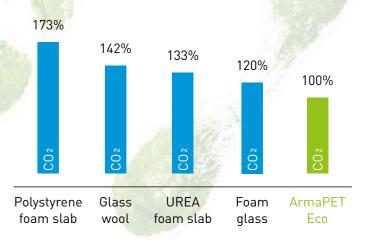
Choosing **ArmaPET Eco** foam core gives plastic bottles a second life and helps to boost the eco footprint of your product. It is one way to keep our environment cleaner.

#### FOR A BETTER CARBON FOOTPRINT

The most important environmental indicator, global warming (GWP100a), is commonly known as the carbon footprint. A carbon footprint is the amount of greenhouse gases — primarily carbon dioxide — released into the atmosphere by a particular human activity (such as a product's manufacture and transport). It is usually measured in tonnes of CO<sub>2</sub> and is an assessment of the product's global warming potential.

Using 100% recycled PET plastic as the raw material base for **ArmaPET Eco** results in a **much lower level of CO<sub>2</sub> emissions** compared to that of other polymeric insulating foams currently on the market.

The graph shows the CO<sub>2</sub> emission of **ArmaPET Eco** in comparison to its main competitive materials currently on the market. ArmaPET Eco = 100% reference.



### SUSTAINABLE PRODUCT SOLUTION

**ArmaPET Eco** is a 100% recyclable core material made entirely from recycled plastic. In plastic waste terms, this is probably its greatest benefit. **ArmaPET Eco** is a truly recycled and recyclable solution for structural insulating foam cores used in composite structures. It contributes to ensuring sensible use of plastic waste and helps to save energy and reduce  $CO_2$  emissions.

In addition to its sustainable raw material base, **ArmaPET Eco** is manufactured according to an energy and resource optimised production process: with the re-use of waste material and no use of ozone-depleting HFC or CFC blowing agents. Since **ArmaPET Eco** is halogen-free, waste conversion after its use phase does not create any additional environmental problems.

- Based on 100% recycled post-consumer PET
- 100% recyclable after use
- Significant CO<sub>2</sub> emission savings

None of us can save the world all on our own. But a sensible use of plastic waste helps us move towards a more sustainable society.



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## ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With more than 3,000 employees and 24 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For more company information, please visit: www.armacell.com

