

## a truly sustainable concept!

"Caring for Climate", a UN Global Impact Initiative, highlights the responsibility of business to reflect the needs of climate protection. A principle we have fully endorsed as well in our production: all Armacell PET foam cores are manufactured according to an energy and resource-optimised production process (100% re-use of material loss, no ozone-depleting HFH or CFC blowing agents), are fully recyclable and thus are considered as an environmentally sensitive solution in the composite industry.

But we did not stop there and have made again a significant contribution to sustainable growth in the composite industry. Scientists of the global R&D Team have spent several years in the development of production technologies and special recipes that allow the manufacturing of a PET foam core that is made 100% from post-consumer recycled PET, called **ArmaFORM PET GR**. The basis comes from beverage bottles: billions of which are in circulation all over the world.

Recent Life Cycle Study (2011) results show that for every pound of recycled PET flake used, energy use is reduced by 84%, greenhouse emissions by 71% <sup>1)</sup>. Using such recycled PET in the foaming process of **ArmaFORM PET GR** leads to the excellent result of a 30% lower carbon footprint, the greenhouse effect is reduced by 34% and energy consumption is lowered by 40% compared to the use of the virgin PET resin. The results of comprehensive LCA review are depicted in the two charts on the right indicating the relative greenhouse effect (CO<sub>2</sub> emission) and energy consumption of various foams, including that of **ArmaFORM PET GR** <sup>2)</sup>.

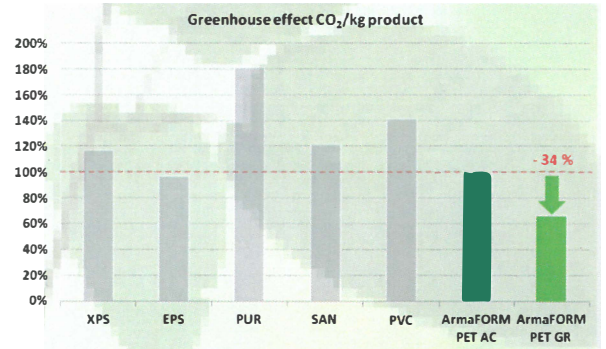


Fig 1: CO<sub>2</sub> emission during production of different core materials.

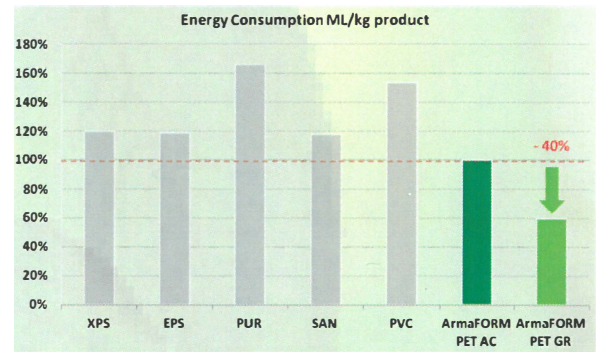
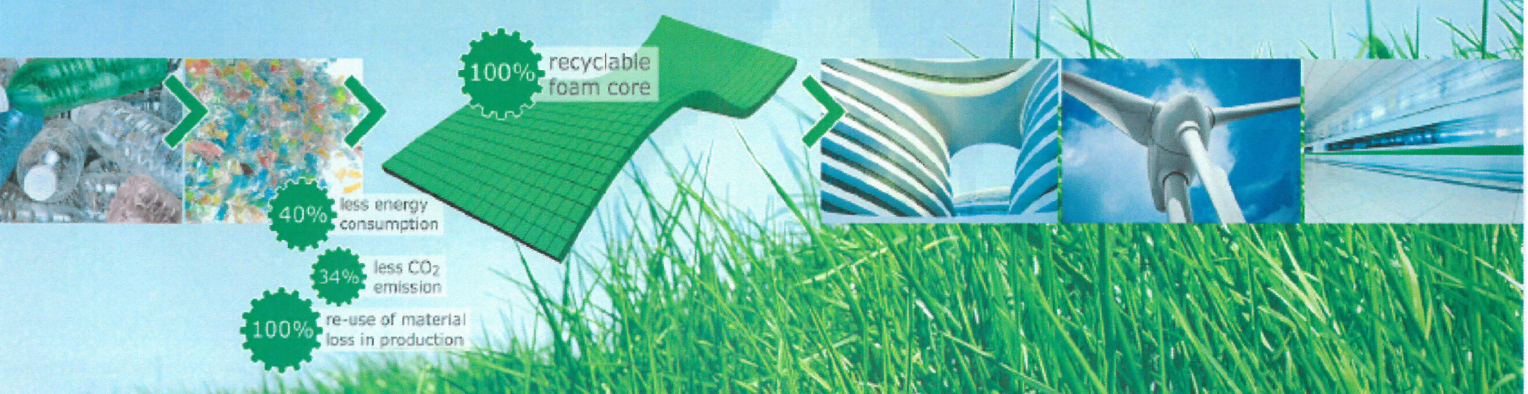


Fig 2: Energy consumption during production of different core materials.

<sup>1)</sup> Life cycle inventory of 100% post-consumer HDPE and PET recycled resin from post-consumer containers and packaging Franklin Associates, January 2011  
<sup>2)</sup> Armacell LCA report, data from 2011.

## ArmaFORM PET GR 100% made from post-consumer PET



...a truly sustainable concept used in the composite industry!

