

## A SUSTAINABLE SHIFT IN PACKAGING:



### High Bio-Based Adhesives' Remarkable Impact

In the packaging industry, sustainability is one of the most discussed topics for the entire value chain. Therefore, new solutions need to find their way into the market to lower the overall CO<sub>2</sub> footprint of the products and the production processes, while increasing the usage of bio-based raw materials.

Many conventional hot melt adhesives for packaging applications already have a formulation of up to 50 percent bio-based raw material. This has been industry standard for adhesive manufacturers for years now. Until this point, when the bio-based share of raw material was exceeding the threshold, process inefficiencies for producers like slower line speeds or shorter equipment cleaning cycles made it impractical to go further down this road. However, the teams at Henkel Adhesive Technologies were confident in achieving a solution that will enable a far higher sustainability rating without having to compromise on the process performance in production. From this, Henkel's research and development team came up with the Technomelt Supra ECO range.

"This new range of hot melts surpasses all currently available solutions" explains Nasheen Ragubeer, Head of Technical, Henkel Australia and New Zealand. "With the potential to exceed 80 percent of bio-based raw material input, while maintaining optimal performance, we have developed a technology that paves the way for the packaging industry's future.", he adds.

And the numbers show a clear message: during lifecycle analysis the TECHNOMELT® Supra ECO range has already proven to be not only highly efficient, but also very sustainable.

"Our solutions not only succeed in lowering CO<sub>2</sub> emissions during procurement and production but also have the added benefit of sequestering CO<sub>2</sub> when considering the

overall balance for the global warming potential over a 100-year period (GWP100). The results were very pleasing – achieving a negative cradle-to-gate product carbon footprint represents the best outcome" concludes Jose Reano, Business Development Manager, Henkel Australia and New Zealand.

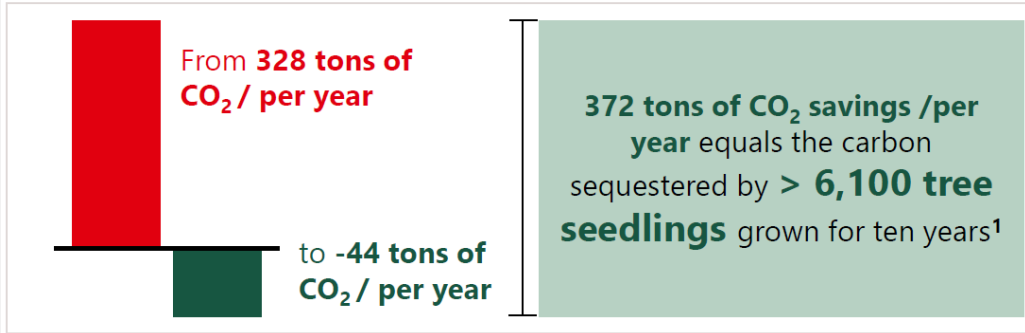
#### Introducing TECHNOMELT® Supra 081 ECO in Australia and New Zealand

Exciting news, Henkel has launched TECHNOMELT® Supra 081 ECO into the Australia and New Zealand market to meet the demand in the packaging industry. As the name suggests, TECHNOMELT® Supra 081 ECO is made of 81% bio-based material using a mass balanced approach, while delivering the known Technomelt Supra and Food Safety Performance, with technical properties similar to TECHNOMELT® Supra 100.

TECHNOMELT® Supra 081 ECO provides a full traceability of the CO<sub>2</sub> footprint and the sustainable sourcing of raw materials, thanks to a mass balance approach certified under ISCC PLUS. Mass Balance Transfer refers to the tracking of material in flow and out flow of a closed production system, guaranteeing a certain amount of bio-based material entering and leaving the process.



## The first carbon-negative hotmelt adhesive helps you to move to a **NEGATIVE CARBON FOOTPRINT:**



Assumed consumption: 100 tons per year.<sup>2</sup>

It is the first carbon-negative hotmelt adhesive that can help you move to a negative carbon footprint. At an average consumption of 100 tons per year, the carbon footprint of a standard polyolefin hotmelt adhesives<sup>1</sup> amounts to 328 tons of CO<sub>2</sub> per year. This equals 164 tons of burned coal or 71 passenger cars driven for a full year<sup>2</sup>. At the same rate of consumption, TECHNOMELT® Supra 081 ECO will result in a carbon negative footprint of -44 tons of CO<sub>2</sub> per year. This saving of 372 tons of CO<sub>2</sub> per year equals the carbon sequestered by more than 6,100 tree seedlings grown for ten years.<sup>2</sup>



### Supporting the packaging industry to become more sustainable.

The whole packaging industry is going through a change, where sustainability and targets on this topic are becoming decisive for overall business success. Many industry players now consider sustainability a non-negotiable aspect of their business objectives.



Henkel fully embraces this trend, incorporating it into their research, development, and customer approach. They are a process partner for customers, assisting them in attaining their renewable sourcing and CO<sub>2</sub> reduction goals, going beyond the role of an average supplier. By being actively involved in the packaging design process at an early stage, as adhesive manufacturers, Henkel can significantly contribute to the development of new products that prioritise circular economy objectives, such as recycling from the outset. This approach to modern adhesive solutions aims to drive change within the industry.

The industry is greatly influenced by consumer demand, making sustainable approaches essential throughout the entire value chain, resulting in environmentally friendly end-products. Henkel's range of bio-based hot melts, Technomelt Supra ECO, aims to spark more innovation and set a new packaging benchmark.

Run your trials with TECHNOMELT® Supra 081 ECO and start making the difference by reducing your CO<sub>2</sub> footprint with bio-based adhesives. For more information on the TECHNOMELT® Supra ECO range and to organise a trial, please visit our website [here](#) or scan the below QR Code.

Scan here to learn more:



Email: [solutions@henkel.com](mailto:solutions@henkel.com)

#### References

- <sup>1</sup> Reference product: Supra 100, Cradle-to-Gate Life Cycle Assessment;
- <sup>2</sup> Source: U.S. Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator* | US EPA#

