



**2019 SUSTAINABLE PACKAGING DESIGN
SPECIAL AWARD - MATERIALS
SILVER WINNER**



**WORLDSTAR
PRESIDENT'S BRONZE
SPECIAL AWARD 2020**



Plantic Technologies

Plantic™ RV high skin barrier Skin Pack

Key Outcomes and Measurement

93%

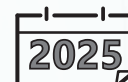
PLANTIC™ RV is made from 93% renewable or recycled materials

1.95MT

CO₂ savings for every tonne of PLANTIC™ RV produced



Australasian Recycling Label (ARL) on-pack



Committed to 2025 National Packaging Targets



rPET Clear Trays = **100 MT** of plastics removed from landfill



Uses post-consumer PET bottles and trays sourced from Australia and New Zealand



On-pack communication for recycling



Replaced black non-recyclable trays

9.5%

Reduction in packaging materials by moving from 700um to a 635um PLANTIC RV



Design aligns to circular economy principles



Company: Plantic Technologies

Product: NEAT Meat Tray using PLANTIC™ RV high barrier Skin Pack recyclable material to replace their previous non-recyclable tray made from black HIPS (High Impact Polystyrene).

Country: Australia

One of the suite of high-barrier products Plantic Technologies has developed in recent years in response to the increasing consumer awareness of environmental impacts is the recipient of the 2020 WorldStar Packaging President's Bronze Special Award for Materials. PLANTIC™ RV high skin barrier Skin Pack is manufactured using modern technology where recycled polyethylene terephthalate (rPET) is combined with renewably sourced, high barrier PLANTIC™ HP sheet, made from renewable industrial crops including Corn and Tapioca. Together, the pack delivers a clear tray with clear skin sheet.

The winning entry was developed with Neat Meat from New Zealand. Neat Meat is a sustainable meat supply business. Their pledge is to offer meat produced with strict compliance to approved sustainable farming practices. The PLANTIC™ RV Skin Pack replaces the previous black high-impact polystyrene tray that was non-recyclable.



- Plantic has expanded its bio-based barrier layer to be matched with rPET to develop the PLANTIC™ RV Skin Pack.
- PLANTIC™ RV offers a recyclable and renewable clear multi-layer tray system.
- PLANTIC™ HP sheet can be dissolved in water to ease recycling other polymers including rPET.
- Increasing plastic awareness offers opportunities for market and consumer education and behaviour change.
- The Australasian Recycling Logo (ARL) guides immediate consumer education.
- Key changes to packaging design will be driven by policy.

What is sustainable packaging to you?

Warwick Armstrong MAIP, General Manager for Business Development Marketing for Plantic Technologies, says *"Sustainable packaging must consider start of life and end of life, adopting a circular economy perspective. Start of life should include the use of alternative materials and for end of life, options to improve recovery and reduce landfilling need to be considered"*. Warwick says, *"packaging should be designed to be easily returned to new products and a move away from single use items where possible."* Warwick is also conscious of the need to create demand for the new recycled products – something Plantic can support.

"I think first and foremost, packaging is designed to do a job. Without packaging, there is a higher chance of food spoilage," says Warwick. *"Particularly for plastic, I think people need to be reminded that reducing food spoilage is an important function of packaging."* The PLANTIC™ RV Skin Pack does just that with an increase in shelf life thanks to its structure.

What is the story behind the design?

The award winning PLANTIC™ RV high skin barrier Skin Pack is one of a suite of products developed by Plantic technologies to address the negative consumer perception of plastic. Plantic has developed its core product, a water-soluble monolayer, over almost 20 years into a range of recyclable and renewable multi-layer solutions.

Warwick explained, *"We were looking to design an alternative tray for Neat Meat that would align with their sustainability values. The PLANTIC™ RV offers this by using rPET for the outer and inner layer and a bio-based barrier layer with the PLANTIC HP. This product builds on the early designs using just corn starch as a single sheet, and now delivers sustainable skin packaging."*

By using rPET in this design, Warwick says they are supporting the increasing recycling industry by increasing their demand for the product. *"Anything that is food grade PET, bottles or other trays for example, can be used in our RV Skin Pack design,"* he said.



Working with the market to design alternatives

Plantic Technologies works with its customers to design packaging that aligns to their needs. In this case, the Neat Meat company from New Zealand, identified that in their goals to deliver a fully sustainable meat product to market, that a black high-impact polystyrene tray, did not fit those goals.

Warwick explained, *“Neat Meat are a fully sustainable business. They work from paddock to plate to deliver sustainable meats to the consumer. Of course, being a fully sustainable business, you can’t really say, ‘Well I’m providing a sustainable meat product and here it is presented in a plastic tray that is going to landfill.’ It’s that last piece [the packaging] that they wanted and it’s that last piece that we were able to deliver.”*

With a full research and development team, and the market demand, particularly of larger customers, Plantic Technologies have been able to design and deliver the PLANTIC™ RV Skin Pack to Neat Meat – a home-grown New Zealand company – and its customers.

Educating the market and consumers

Warwick explained that the PLANTIC™ RV Skin Pack is a sustainable product that is available to the market, but the market needs to be aware and be educated on the benefits. *“Customers need to be believers of the product, they’ve got to believe in sustainability, they’ve got to believe*

they want to do the right thing for the environment,” Warwick says. Customers that are wanting to be environmentally responsible are more likely to choose the Plantic range of products – the believers – as Warwick calls them.

For the consumer, it is about working with the labels that are designed by industry. The Australasian Recycling Label (ARL), owned by Planet Ark, is key in providing this information to local markets. *“The ARL logo is a great thing. It offers more information than the 1 to 7 numbering common on plastic packaging, and it’s local to our region,”* says Warwick. *“we are seeing ‘how to recycle’ logos now in our US and European markets, but it’s all about consumer awareness made easy,”* he added.

What about the future?

Warwick sees the future of packaging as one that is driven both policy, but also recognising that in a global market, packaging solutions need to be considered for the local market as well as global.

For policy, Warwick recalls a UK based company who were facing a GBP100 million increase in the future should they not adopt recycled content in their packaging. *“Such a fee in this region could encourage designers to rethink packaging that would otherwise go to landfill,”* he said.

Global markets also affect design. *“What will work in Thailand, for example, in the future, will not be recyclable in the UK, and maybe Australia,”* Warwick explained. Warwick sees a full product life responsibility as one solution to this growing issue.



What does winning an Australasian Packaging Innovation & Design (PIDA) Award mean?

Warwick Armstrong MAIP, General Manager for Business Development Marketing for Plantic Technologies, sees the award as recognition of innovation thinking: "I think for us, we often go out on a limb to do things that are a little bit different. The PIDA award was recognition that doing things differently was worth it. When you're developing a material, it doesn't always go smoothly, but it's nice to be recognised, and that you're on the right track or you're doing the right thing."



Plantic Technologies Receives Global Recognition with WorldStar Packaging President's Bronze Special Award and two General Awards



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Following the win at the PIDA awards, Plantic Technologies was then awarded two WorldStar Packaging General Awards and then the prestigious President's Bronze Special Award for the PLANTIC™ RV Skin Pack which provided global recognition for their design.



The Australasian Packaging Innovation & Design (PIDA) Awards are an Australia and New Zealand program that is coordinated by the Australian Institute of Packaging (AIP). The awards recognise companies and individuals who are making a significant difference in their field across Australia and New Zealand. The PIDA Awards are the exclusive entry point for Australia and New Zealand for the prestigious WorldStar Packaging Awards.

The Design Innovation of the Year company awards recognise organisations that have designed innovative packaging within each of these six manufacturing categories:

- Food
- Beverage
- Health, Beauty & Wellness
- Domestic & Household
- Labelling & Decoration
- Outside of the Box

There are four special awards available:

- Sustainable Packaging Design
- Accessible & Inclusive Packaging Design
- Save Food Packaging Design
- Marketing Award

The **Sustainable Packaging Design Special Award** is designed to recognise companies that have developed innovative packaging solutions that incorporate sustainability considerations. All entries are judged on Sustainable Packaging Design considerations such as social impact, material, source reduction, energy and recovery and what packaging changes the company is undertaking to meet the 2025 National Packaging Targets. This is also a WorldStar Packaging Awards category.



The Australian Institute of Packaging (AIP) is the peak professional body for packaging education and training in Australasia. The AIP helps shape the careers of generations of packaging professionals – from packaging technologists to international packaging business leaders along with a host of people in associated disciplines – sales and marketing, purchasing, production and environment.

Australian Institute of Packaging

Australasian Office: info@aipack.com.au
For PIDA enquiries: pida@aipack.com.au