

2017 SUSTAINABLE PACKAGING DESIGN SPECIAL AWARD - RETAIL GOLD WINNER

Plantic Technologies Plantic[™] R Packaging Material





The growing trend of consumer awareness towards the impact of their actions on the environment encouraged Plantic Technologies to successfully develop and commercialise ultra-high barrier bio-plastic materials including the award-winning PLANTIC[™] R. The R material has many unique features. Its offers ultra-high barrier, is renewably sourced, has high clarity and is certified. PLANTIC[™] R combines Plantic bio-based high barrier material with PET to create a globally unique product.

The material is manufactured using modern technology where thin layers of PET are adhered to a core layer of renewably sourced, ultra-high barrier PLANTIC[™] HP sheet. The PLANTIC[™] HP core provides exceptional gas barrier, and the PET provides moisture/water vapour barrier to the structure.











- Plantic[™] has evolved from a corn-starch-based monolayer to an provide an important barrier layer in multi-layered packaging.
- Plantic[™] is water soluble when recycling other polymers.
- Increasing plastic awareness offers opportunities for education and behaviour change.
- The Australasian Recycling Label (ARL), underpinned by the PREP tool, offers 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, sees the foundation of sustainable packaging seeking out alternative materials at the start of life, while also considering end of life of the product and how that can be improved. Warwick identifies with the circular economy, *"packaging should be designed to be easily returned into new products but moving 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, that 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 food preservation is an important function."

What is the story behind the design?

The award winning Plantic[™] R Packaging Material was the result of more than a decade of work to design a sheet that on its own could be 100% biodegradable, but also provide a barrier technology that could support increased recyclability of PET layered packaging.

Warwick explained, "The product has been evolving since its first design in 2002 as part of a co-operative research centre initiative. The design was focused on making a plastic out of corn starch. Since then, we have been able to adapt the sheet in a range of layered applications, including the one adopted by Coles." The winning entry uses Plantic[™] between layers of rPET to create excellent barrier performance plus it is water soluble for recycling.

As a barrier film, the R Packaging Material caught the attention of Japanese EVOH supplier, Kuraray, who has since purchased the company, continuing to support R&D to improve the material for increasing applications.



Understanding why plastics are a target

Warwick Armstrong MAIP, General Manager for Business Development Marketing for Plantic Technologies has compiled a list of five drivers influencing the growing aversion to plastic:

- Animals: people are motivated by animals and their welfare, including sea turtles, shown to be impacted by plastic;
- 2. Health: plastic in the ocean, and in marine animals, could also impact our food chains what does that do to our bodies?;
- Tangibility: plastic is a tangible and has a very visual impact;
- 4. Actionable: the public can take action through choice on many products – we feel like we can do something about it;
- **5. Social media**: prolific use of social media demonstrates the impacts widely to the global population.

"Consumers have never been more aware of what they are using than they are today. We can build on this to generate wide-ranging change," says Warwick.

Educating the consumer

Educating the consumer without overwhelming them with packaging specific contact is necessary to change behaviours.

Warwick sees the Australasian Recycling Label (ARL) as key in providing enough information for consumers to decide on what they can do with the packaging.

"Its more explanatory than the 1 to 7 Plastic numbering system. Being underpinned by the PREP tool, we can educate consumers without the unnecessary detail," Warwick says.

What about the future?

For Warwick, the future of packaging will need to be directed by policy. "For me personally, if we are to get serious about products that can't be recycled, government will need to impose a tax, such as they are doing in the UK," says Warwick.

"Such a fee could encourage designers to rethink packaging that would otherwise go to landfill," he said.



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 Award

Following the win at the PIDA awards, Plantic Technologies was then awarded a WorldStar Packaging Award 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

There are four special awards available:

- Sustainable Packaging Design
- Domestic & Household
 Labelling & Decoration
- Outside of the Box
- 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.

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