

A world-class circular plastic solution



Transforming Australia's waste plastic into food grade circular polyethylene

Genos Alkanew will be a key contributor to the achievement of Australia's plastics recycled content targets

The opportunity to collectively reposition the Australian plastics industry as a global leader in sustainable circular manufacturing has arrived.

Alkanew circular polyethylene is certified by mass balance to contain 100% recycled content through the process of Advanced Recycling.

Advanced recycling enables coloured, multilayer and multi-material packaging to be recycled into food grade circular polyethylene, overcoming the quality and performance deficits experienced when these materials are mechanically recycled.

The properties of Alkanew are identical to conventional Genos grades and Alkanew is available across the range of LDPE, LLDPE, mLLDPE, and HDPE resins.

Alkanew presents a new beginning, transforming waste into a valuable resource and closing the loop to enable a circular plastics economy.

The solution local and global brands seek

The packaging industry is transforming in response to the challenge to create more sustainable packaging and is committing to ambitious targets for recyclability and recycled content.

Genos Alkanew circular polyethylene is 100% recycled food grade resin that can substitute for conventional resin across a wide range of packaging applications.

Quality

- Food contact and full regulatory compliance
- Usable at up to 100% recycled content
- A drop-in solution, identical in performance to conventional resin

Sustainability

- Certified 100% recycled material on a mass balance basis
- Reduced carbon footprint and non-renewable energy demand versus conventional resin
- Made in Australia supporting the diversion of Australian waste plastics from landfill and incineration

Backed by Genos

- Next day delivery through a fully domestic supply chain
- Available across all Genos resin types including LDPE, LLDPE, mLLDPE, HDPE
- Creating jobs and investing in the local manufacturing industry



Over the long term the project will create a \$356 million industry, generating 3,100 jobs for the local economy

Packaging makes up 40% of all plastic applications globally

Food grade plastic packaging with recycled content is a pressing industry requirement, an essential element in meeting Government, Industry Association and Brand Owner commitments for circular packaging.

The Genos circular plastics project will:

- Divert 100,000 tonnes of household soft plastic waste and mixed plastics from landfill into feedstock for use in place of conventional feedstock
- Produce food-grade Circular Polyethylene with 100% recycled content through mass balance enabling commitments for recycled content to be met
- Provide a drop-in solution for converters and manufacturers of packaged goods, with properties and performance that are indistinguishable from conventional resin but with the incorporation of 100% recycled content

A new beginning

Advanced recycling complements mechanical recycling by transforming hard to recycle household soft plastic and mixed plastic waste into circular polymers.

The technology chosen by Genos can chemically recycle a wide range of plastics including multilayer plastic packaging. Unsuitable plastics are removed and contamination is managed in a pre-processing step that converts the plastic waste into a high specification plastic feedstock.

The feedstock is transformed using Thermal Anaerobic Conversion technology pioneered by Plastic Energy into a mixture of hydrocarbons resembling crude oil.

Many processes claiming to be advanced recycling stop at the creation of oil.

At Genos the oil is purified and chemically upgraded in the RewindMix process developed by Axens. This transformation creates a high specification naphtha that is used as a drop-in feedstock in the production of circular polyethylene by Genos.

The result is circular polyethylene created from waste plastic – a much needed solution that is only achievable using the critical cracking and polymerisation assets operated by Genos at its plants in Altona and Botany.

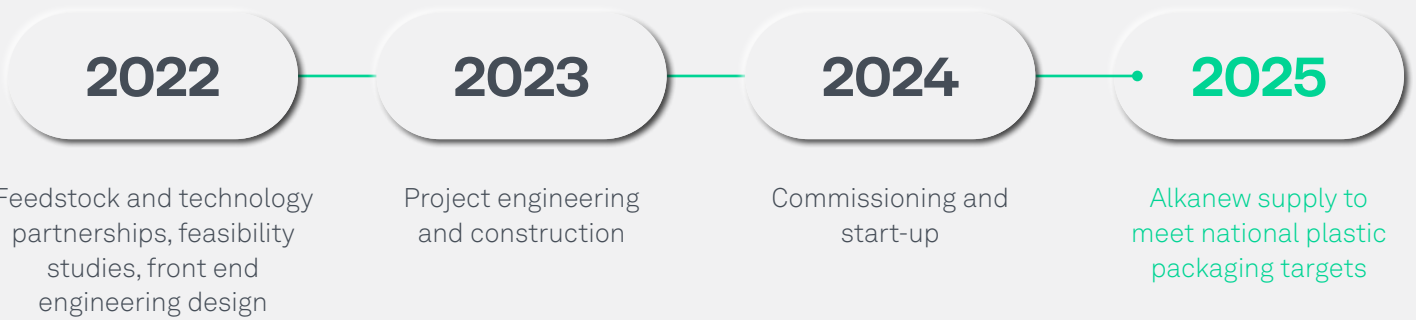
	Advanced Recycling	Mechanical Recycling
Beverage containers (HDPE, PET)	Mechanical preferred	Food Grade
Coloured rigid containers (HDPE, PP)	Food Grade	Non-food Grade
Soft plastics (LDPE, HDPE, PP)	Food Grade	Non-food Grade
Performance	As per conventional	Performance deficits
Mixed feedstock	All applications	Downcycling
100% recycled content	All applications	Some applications
Number of cycles	Infinte	<7



Be part of the future

Alkanew circular polyethylene will be available for contracted customers from late 2024, in time to meet your 2025 commitments.

Get in touch with us to find out how to become part of this new beginning for plastics.



A pioneer in Australian manufacturing and processing for nearly 60 years

As Australia's only manufacturer and leading supplier of polyethylene, Qenos adds value to Australia's natural resources through conversion into petrochemicals and polymers that are used by hundreds of companies in the Australian plastics industry.

Qenos products are used in myriad applications including the key packaging, agriculture, automotive, water, mining and waste management industries, making Qenos a vital link in the Australian manufacturing chain. With manufacturing sites in Victoria and New South Wales, Qenos has approximately 850 employees and contractors with annual revenue of \$700m.

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