



Innovation
everyday

A journey through a year of innovation



I am excited to introduce our very first innovation and sustainability report. The purpose of this document is to keep you up to date on our latest initiatives.

As part of this, we have a new vision: “Innovating to secure a sustainable future for our people, our product, our planet.”

Since EPL was founded in 1974, we have had a long history of innovation. We love nothing more than working together with our customers to help shape the future.

We're proud to be the experts in polymer extrusion. At the end of last year, we were recognised for our work with Scion at the Sustainable Business Network Awards, when we won the award for Outstanding Collaboration for our work on Biodegradable Vine Clips.

Our new vision puts innovation and sustainability at the core of what we do. The environmental strategy of 'reduce, reuse, recycle' has been in place at EPL for decades. I am please to report that last year we increased the amount of recycled material we use by 63%.

Recently we have also adopted 5 key UN sustainable development goals:



**GOOD HEALTH
& WELL-BEING**



**DECENT WORK
& ECONOMIC
GROWTH**



**INDUSTRY,
INNOVATION &
INFRASTRUCTURE**



**SUSTAINABLE
CITIES AND
COMMUNITIES**



**RESPONSIBLE
CONSUMPTION &
PRODUCTION**

The effect Covid-19 has had on supply chains is still being felt. This will continue to impact the lead times of raw materials and the exportation of product for the foreseeable future. To help you plan around this, we are investing in a new customer portal that will allow you to access the information you need, 24/7. 365 days per year. This will come online towards the end of 2021.

We continue to invest in the latest equipment and more new products. Keep an eye out for updates via our website, LinkedIn and Facebook pages.

Best wishes,

A handwritten signature in blue ink that reads "Gareth Innes".

Gareth Innes
General Manager, Sales & Marketing Manager



Since 1974, we have been providing polymer solutions that make a real difference for our customers. With factories in both New Zealand and Thailand, we're able to offer a unique blend of expertise, technology and capability to provide high quality, competitively priced products at scale.

We're experts in polymer extrusion and injection moulding manufacturing and our capabilities cover both product design and development, and manufacturing, in traditional and sustainable materials.

Committed to innovation – every day

As well as being a product supplier, our history as innovators has seen us partner with clients to meet their current needs and look for future opportunities to make a difference and add value. This includes helping meet their sustainability goals.

With a contemporary approach to manufacturing and dedicated R&D facility we can not only help design new products to solve specific challenges; we can develop manufacturing techniques that improve efficiency or overall quality or even boost sustainability; reduce costs or impact of pre-existing products; and explore new ways to reuse or advance the reusability of materials.

We aim to be a leader of bioplastic technology and deliver real change by designing with complete product lifecycle in mind from the outset, including reusability, recyclability and degradability. We are also developing our own innovative range of sustainable polymers, some made partially from recycled and recyclable compounds, some of natural materials and others completely biodegradable.

Capabilities with flexibility

Drawing on almost 50 years of experience, we offer real end to end solution delivery - from R&D and design services to solve a specific challenge right through to being the manufacturing partner for that solution. We also aim to be leaders in sustainability within our industry, helping clients find new and better ways to create the polymer products they need. With factories in both New Zealand and Thailand, we use a range of manufacturing techniques to produce quality products at scale, with accuracy and cost efficiency, and with sustainability at the forefront.



Innovation is in our DNA:

First in NZ to introduce Santoprene and 80 Shore A plus hardness silicone blocks (for commercial applications).

First in NZ to do a quad profile extrusion.



Sustainability

Putting sustainability at the fore

Every day, we are making real changes that work towards better sustainability. Because as a business, we are acutely aware of the environmental impact our industry has. That's why we take a contemporary approach to manufacturing.

We actively pursue better sustainability to not only satisfy growing customer demand, but because we see it as our responsibility to improve manufacturing practices and the products we create.

Our scientists and R&D team work to find new ways of reusing materials and creating more robust materials with longer useable (and reusable) lifespans, as well as better ways to manufacture at scale.

We aim to be a leader of bioplastic technology and deliver real change by designing with complete product lifecycle in mind from the outset, including reusability, recyclability and degradability. We are developing our own innovative range of sustainable polymers, including a biodegradable polymer (PolyDegrade™), a natural polymer (PolyNatural™) and a recyclable polymer from part recycled/part new materials (PolyCycle™). We are currently investing in developing new products using these materials.

Sustainability is also an everyday performance measure for us at EPL. We have been part of the Plastics New Zealand Sustainability Initiative since 2003 and we work with our partner Comspec to actively decrease the amount of waste going to the landfill, ensuring we recycle paper, cardboard and other materials as much as possible.



Sustainability recognition

Winner – Outstanding Collaboration, 2020 Sustainable Business Awards 2020.

We were very proud to be recognised for our work creating biodegradable vine clips with Crown Research Institute, Scion.

The Sustainable Business Awards are New Zealand's longest-standing sustainability awards, recognising success in sustainability. The judges were very impressed with the vision for developing bio polymers to be manufactured in NZ, bringing environmental, economic and social benefits.



We were also commended on having a roadmap for several new products to follow, clear measures and potential impact goals, as well having reached (at the time) a milestone of using 135 tonnes of recycled material.



Our values

Innovating to secure a sustainable future for our people, our product, our planet.



Everyone's wellness and safety matters

We act with dignity and respect, think big, have fun and do good. All the while, ensuring we never compromise on safety and everyone is accountable for each other.



Together we make the difference

We are collaborators who work well with others. And we build open and honest relationships through communication and accountability.



Think creatively, think differently

We encourage the curiosity and creativity that breeds innovation. We are bold in trying, fast in learning, and hungry to challenge the status quo to find new ways to make a difference.



Do it once, do it right, make it count

Quality is key. We master the fundamentals and strive for excellence in everything we do to ensure everyone wins.



Pride for our product and our planet

We aim to go over and above 'reduce, reuse, recycle' by designing sustainability into our systems, process and products.

Community commitment

Our commitment to making a difference extends outside of our business and into our community.



**CANTERBURY
AND WEST COAST
RESCUE HELICOPTER**

**NZME
CHILDREN'S
CHRISTMAS PARTY**



**GUIDE
DOGS**



TREES THAT COUNT

139

TREES DONATED TO DATE



**RONALD
MCDONALD
HOUSE**

IN 2020 WE USED

+220

**TONNES OF
RECYCLED
MATERIAL**

AN INCREASE OF 63%



**WE TOOK THE
EQUIVALENT OF**

**ONE
MILLION**

**MILK BOTTLES OF WASTE AND
TURNED THEM INTO PRODUCTS**



**Our
innovations**

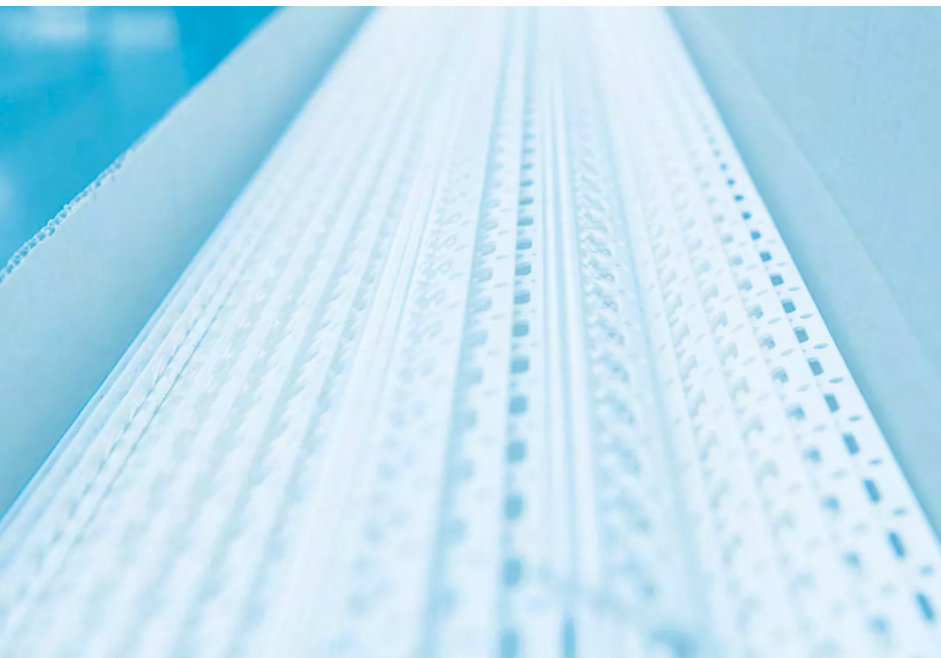
Our innovations

Building better homes with Resene Construction

We have partnered with Resene Construction for over two decades.

Identifying the need for an extruded PVC product that enables a smooth, water-tight plaster finish on exterior façades, our design team worked alongside Resene Construction's technical development team to create a solution that makes it easier applicators to create a seal between buildings and joinery.

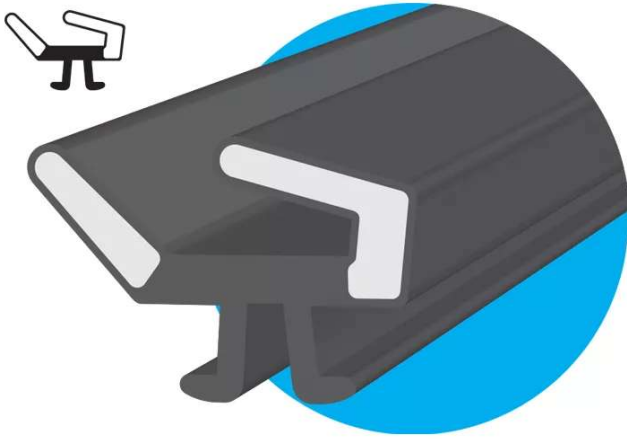
This innovation - the V3 extrusion – replaced four different flashing suites and is Resene Construction's biggest seller in this space.



“Quality product, good turnaround, consistent supply throughout the year, accurate and innovative... it’s a close working relationship that we have with EPL and they always deliver a quality product.”

**Mark Flewellen, National Technical Development Manager
- Resene Construction.**

A game changing seal for Altus Window



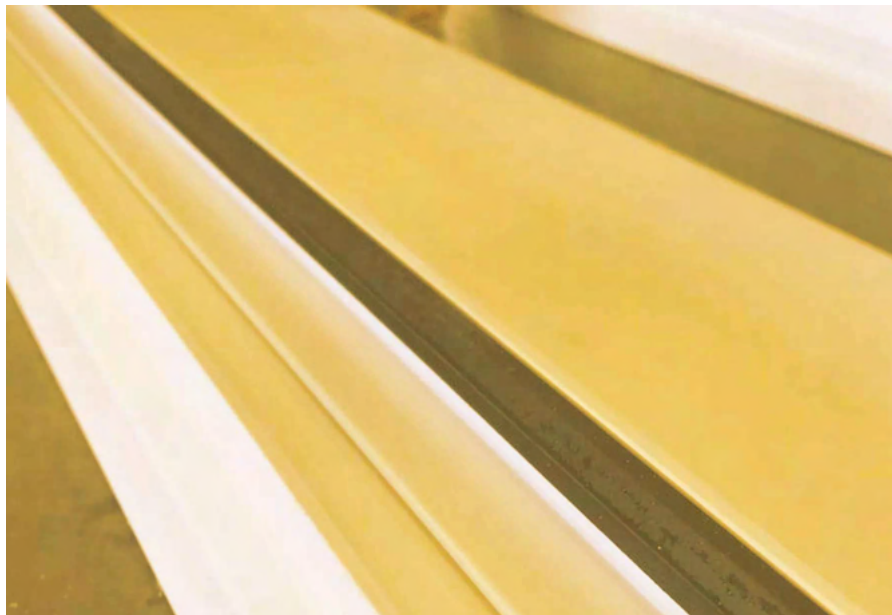
Altus Windows came to us with an idea for a New Zealand first – a new foam seal that could replace every variable wedge with one product.

We started by creating an off-tool sample that could be tested on their wider window system. This was vital to developing and refining the final product before producing it at scale.

While a lot of products use a single material - and therefore become a single extrusion when manufactured - this foam has been extruded using several different materials. The result? A complex profile that can potentially streamline the entire fabrication process.

“(It) provides a better seal than current (existing) seals. More compression allows more tolerance in manufacture. Visually better. A nice flat, even surface in the frame. Push-in feature gives (the) ability to easily replace/retrofit on site.”

**Andrew Rowlands, Director
– Raylight Aluminium.**



Our innovations

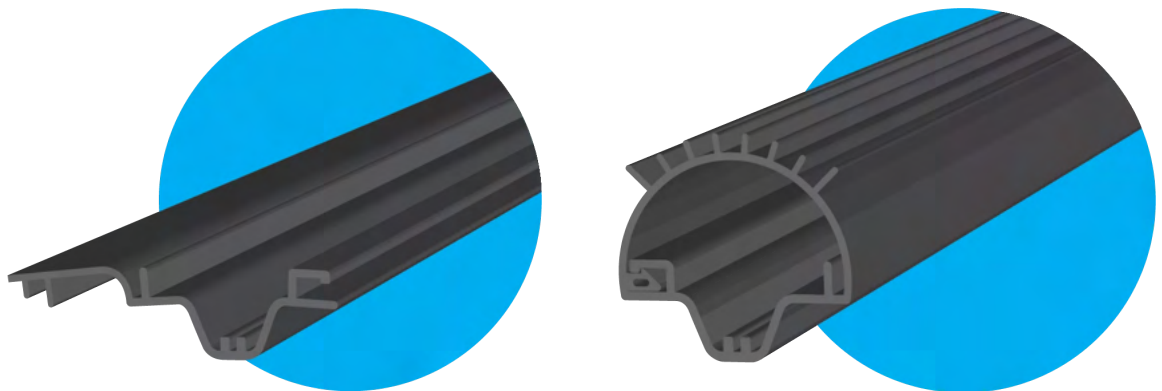
The 2-in-1 problem-solving garage door zip seal

Our newest version of the coextruded garage door seal solved both product and manufacturing inefficiency challenges. Rather than continue to evolve a somewhat imperfect design we cleared the slate and created something quite different to solve all these issues.

Now, the rigid section is located in a recess in the bottom of the sheet metal door panel and held in place with screws; and because the flexible seal section is open, the screws can be applied directly from the outside.

Once door assembly is complete, the soft seal section is wrapped around the edge of the bottom door panel, removing previous damage issues. Then, once the door is installed, the open end of the soft seal is looped around the bottom of the door and zipped into place. If the seal needs replacing, that section can be unzipped for easy access, no dismantling required.

The new optimised design also enables a higher extrusion rate and shorter time to get the profile running; plus close nesting doubles shipping volume capacity!



Our innovations

Packaging that saves on more than just space

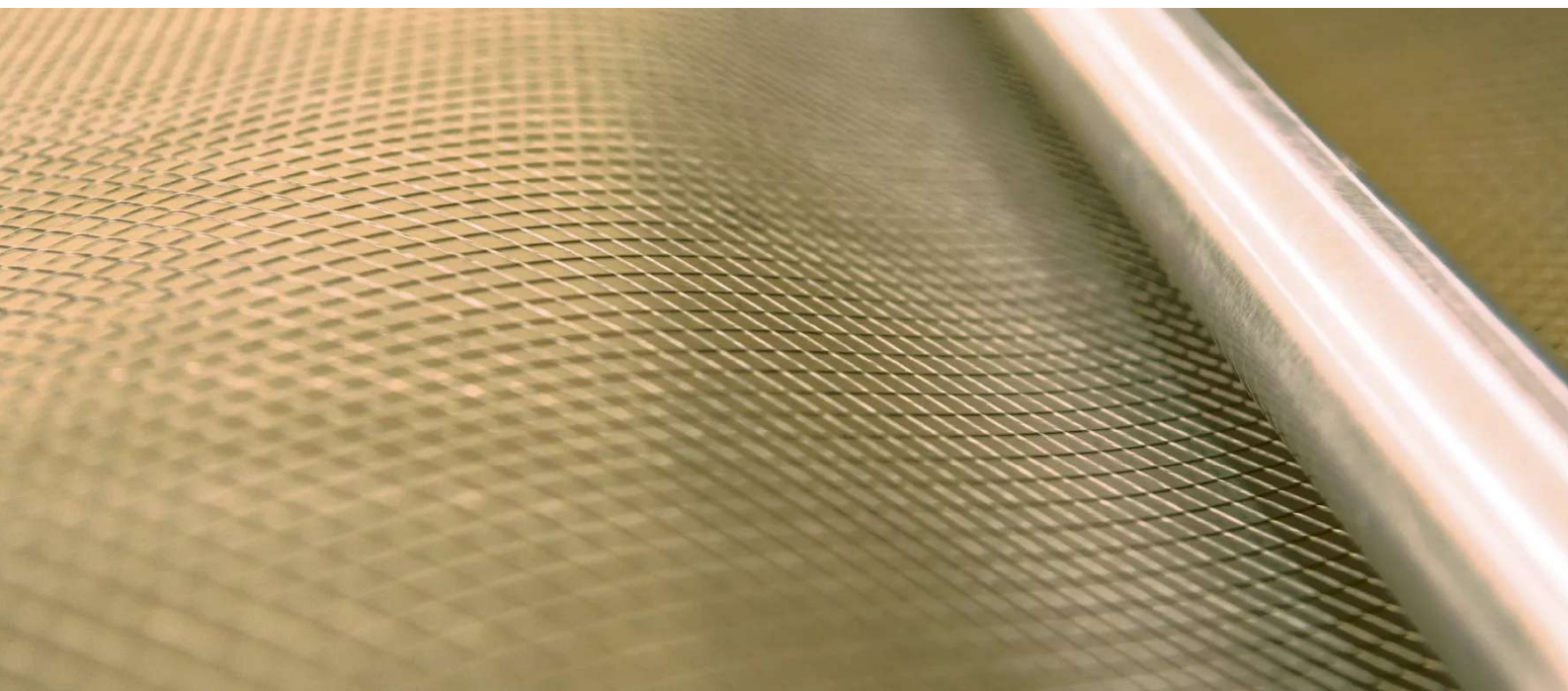
Goodman Fielder is a leading food manufacturer and distributor. We worked with them to create a custom packaging solution.

Used when exporting products to China, the slip sheet is a lightweight alternative to wooden pallets; they are also 30% smaller which frees up room to export more goods; ultimately this all leads to transport cost savings. Further savings come from eliminating the need for pallet exchange.

The slip sheets perform in both cold and humid environments and have a much longer life than corrugated fibreboard. They're suitable for pallet sizes up to 1500mm x 2500mm with sheet thickness varying from 0.55mm up to 2.00mm. The slip sheets also significantly reduce waste.

"We've had no product failures in the 5-year relationship, and no complaints from our clients."

Les Richard, Warehouse Manager – Meadow Fresh Christchurch (part of Goodman Fielder Ltd).

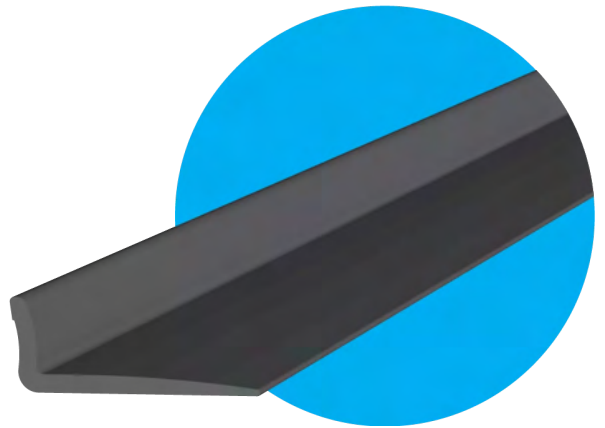


Our innovations

Environmental fish baffles for upstream migration

ATS Environmental work with industry and government agencies to develop working solutions for environmental challenges. In particular, they specialise in reconnecting waterways and restoring fish passage.

We worked with ATS Environmental to develop fish baffles that they had previously encountered limitations in creating using a roto-moulding process. The fish baffles support fish migration when swimming upstream; they work by altering the flow of water through culverts to provided areas for fish to rest.



The new fish baffle's elegant profile has given ATS Environmental a professional, fit-for-purpose product that lifts customer value perception and has also assisted them in breaking into new international markets.



Our innovations

Leading edge bioplastic developments

When Crown Research Institute, Scion, approached us to help develop a faster degrading bioplastic vine clip for the viticulture industry, we threw everything we could at the challenge.

Harnessing the expertise of our extrusion team, we optimised the clip to create a solution that's not just sustainable, but scalable too.



A growing problem

Every year the New Zealand wine industry uses an estimated 16.8 million plastic vine clips to hold nets over ripening bunches of grapes to prevent loss from birds and other pests.

The clips are used for 6 - 8 weeks until the nets are removed and the clips fall to the ground. This leaves a growing pile of plastic littering vineyards around the country and contributes to an emerging environmental problem: the accumulation of non-degrading litter of broken net clips in vineyards and the subsequent generation of microplastic pollution.



Trialing options

With the viticulture industry keen to stamp out the waste, Scion began developing a faster-degrading vine clip made of grape marc and bioplastic.

Led by researcher Steph Weal they trialled different prototypes at a local vineyard, testing numerous formulations before arriving at the right mechanical and physical properties.

The next challenge was ensuring the clip could go the distance to be produced at a commercial scale, and that's where our team's expertise really came in to play.

The makeup of a solution

The innovative new clip is made using an early prototype of our unique sustainable polymers, PolyDegrade™, a custom biopolymer made from a unique blend of compounds derived from plant material.

What was a short-life, single-use product is now being revolutionised, with a sustainable product in its place - one that will have an appropriate, environmentally friendly end of life.



**Industry
solutions**



Viticulture and horticulture

We work with the viticulture and horticulture sectors to develop new products that allow more sustainable operations.



* Image is indicative only.

Our viticultural and horticultural products

PolyDegrade™ vine clips

- Award winning product
- Robust with a strong hold
- Gradually biodegrades with time
- Easy to transport and store
- Supplied loose or on rolls
- Sustainable solution to a single-use product

PolyCycle™ plant protectors

- Made from a blend of new and recycled materials
- Round shape for extra growth space
- Robust protection for young plants
- Available in both standard and slanted hillside configurations
- Sizes range from 300-1700mm
- NZ made to withstand New Zealand's varied environment.
- Easy to assemble – no tools required
- Easy to store and transport
- Returnable to EPL for recycling

PolyDegrade™ weed mats

- Made from PolyDegrade™ (which uses raw materials that are certified compostable; EN13 432)
- Completely biodegradable – plough back into soil
- Stronger than starch-based bioplastics
- Increase yield
- Speed up harvesting
- Save on water and herbicides
- Custom options available

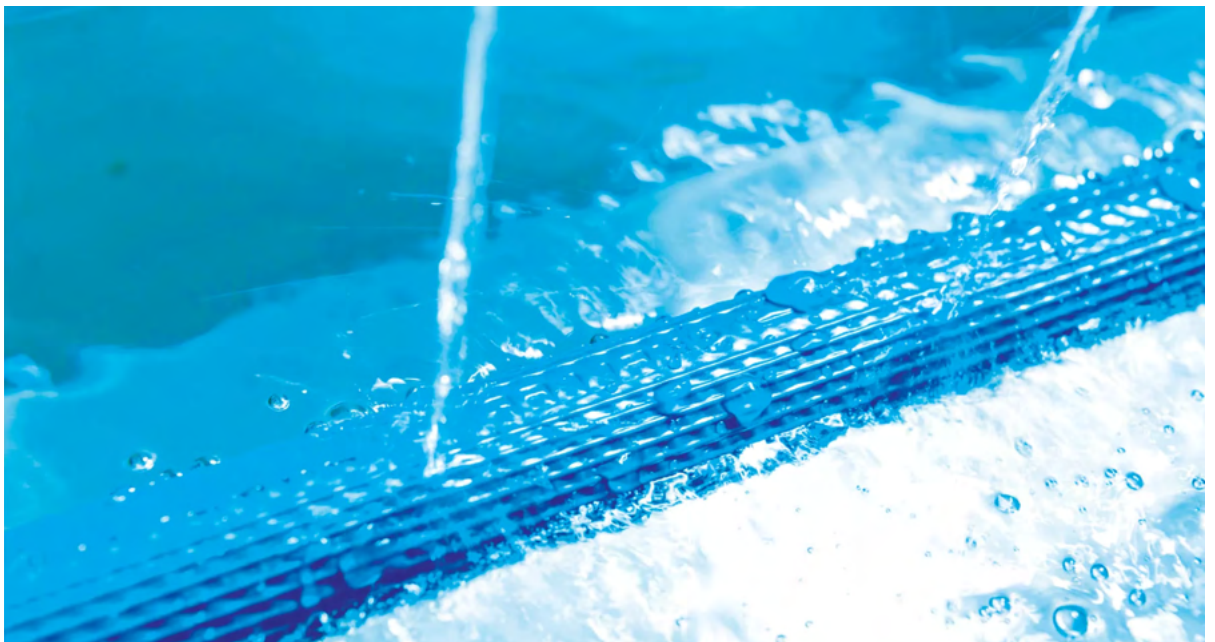
Agriculture and dairy

Our relationships within the agriculture and dairy industries go back decades. The profiles we develop are used in a variety of products for a number of applications.



Key products

- Milkware tubing
- Dairy shed linings
- Washdown hoses
- Hydroponic troughs



Packaging and material handling

We have extensive experience partnering with leading exporters to develop customised packaging solutions.

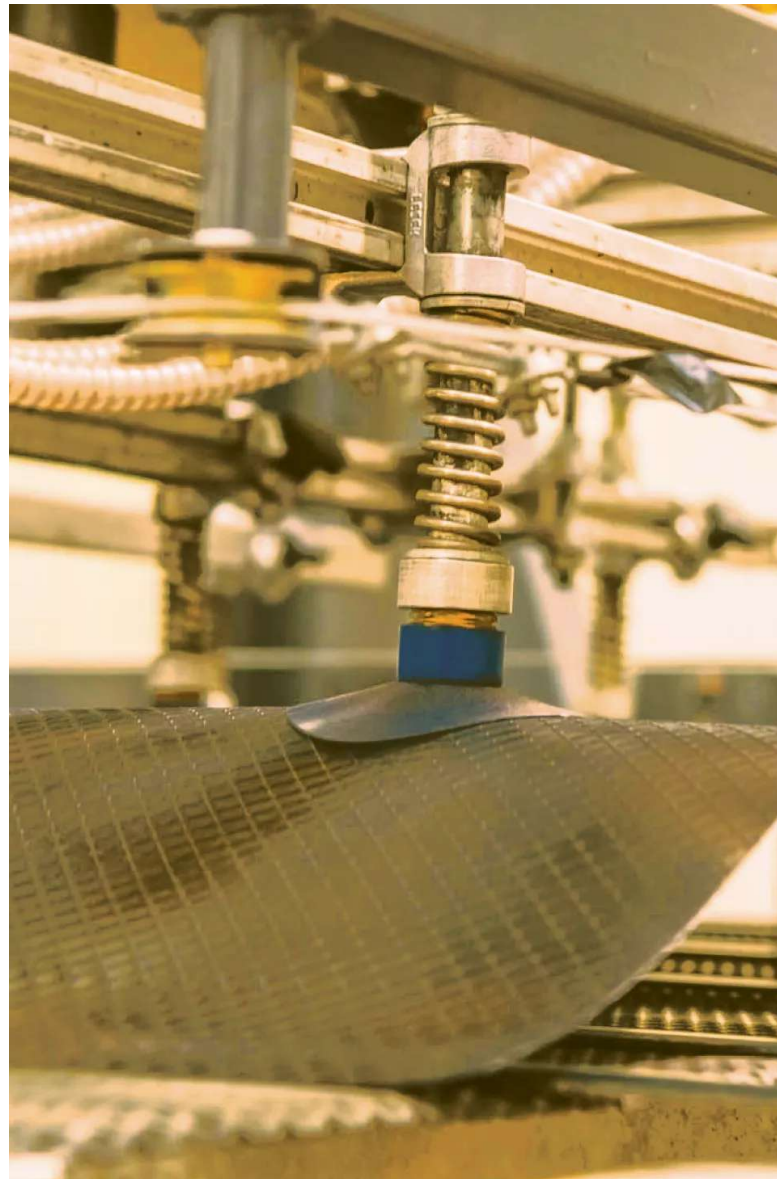
Key products

Slip sheets

- Lightweight alternative to using wooden pallets
- Save space, export more (30% smaller than wooden pallets)
- Lightweight, approx. 1/30th of wooden pallet
- Save costs with no pallet exchange
- Recyclability potential
- Suitable for both cold and humid environments
- Longer life compared to corrugated and fibreboard
- Suitable for pallet sizes up to 1500mm x 2500mm
- Sheet thickness from 0.55mm up to 2.00mm
- Custom solutions available

Packaging materials

- Tubing
- Rings
- Materials used include silicone and PVC
- Custom solutions available



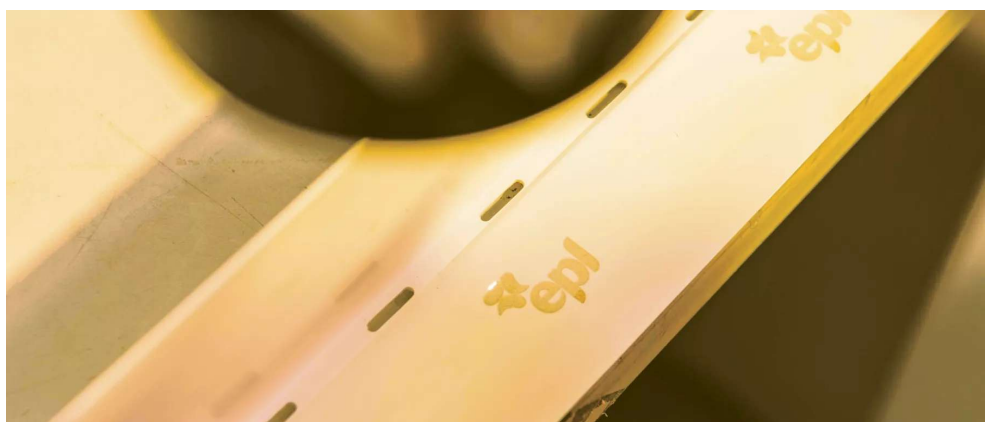
Construction

We have a long history of working with the construction industry to design, refine, and manufacture innovative and robust products – both new and existing - for many different purposes.



Key products

- SCG0860
- Air/water seals
- External mouldings/trims
- Waterstop extrusions
- Plasterboard extrusions
- Exterior flashings
- Garage door seals
- Breaker/freezer jambs
- Wallboard mouldings
- Freezer room door seals
- Thermal break extrusions
- Formwork mouldings
- Glazing



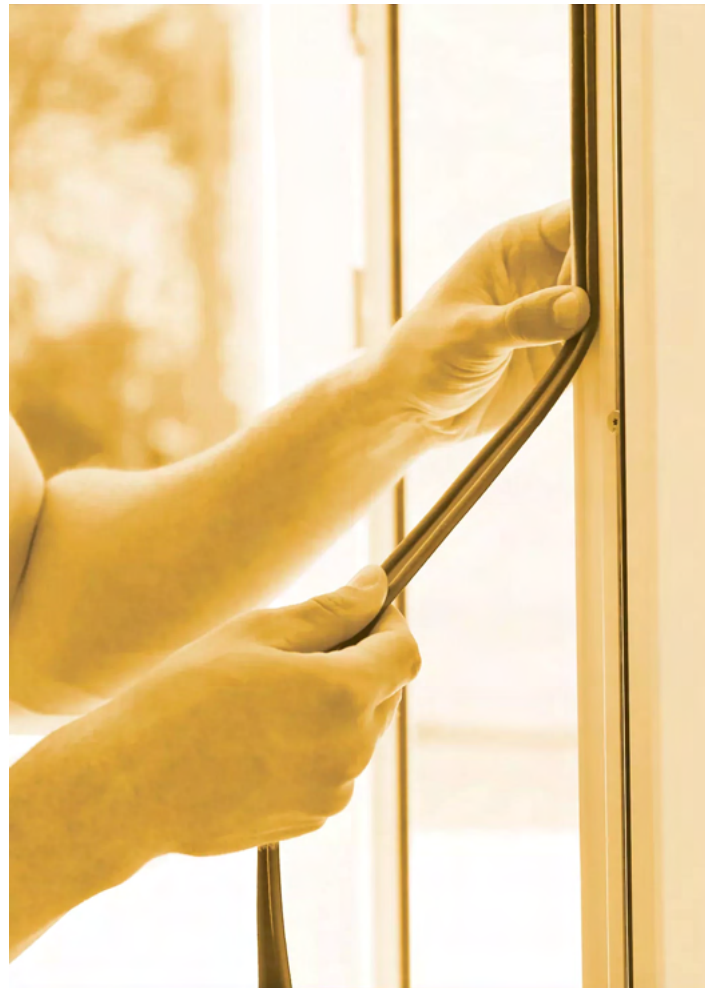
Glazing

Our partnerships in the window industry go back decades to become one of the most trusted suppliers in New Zealand and beyond.

We supply profiles for timber and aluminium joinery, working closely with our clients to design, refine, and manufacture quality and robust products they're proud to take to market. Key materials we work with include TPV, PVC, silicone and foam.

Key applications

- Residential and commercial window gaskets
- TPV and silicone setting/spacer blocks
- Rigid profiles
- Foamed seals
- General glazing seals



Appliances

We regularly work with leading appliance designers from around the world to turn their ideas into reality.



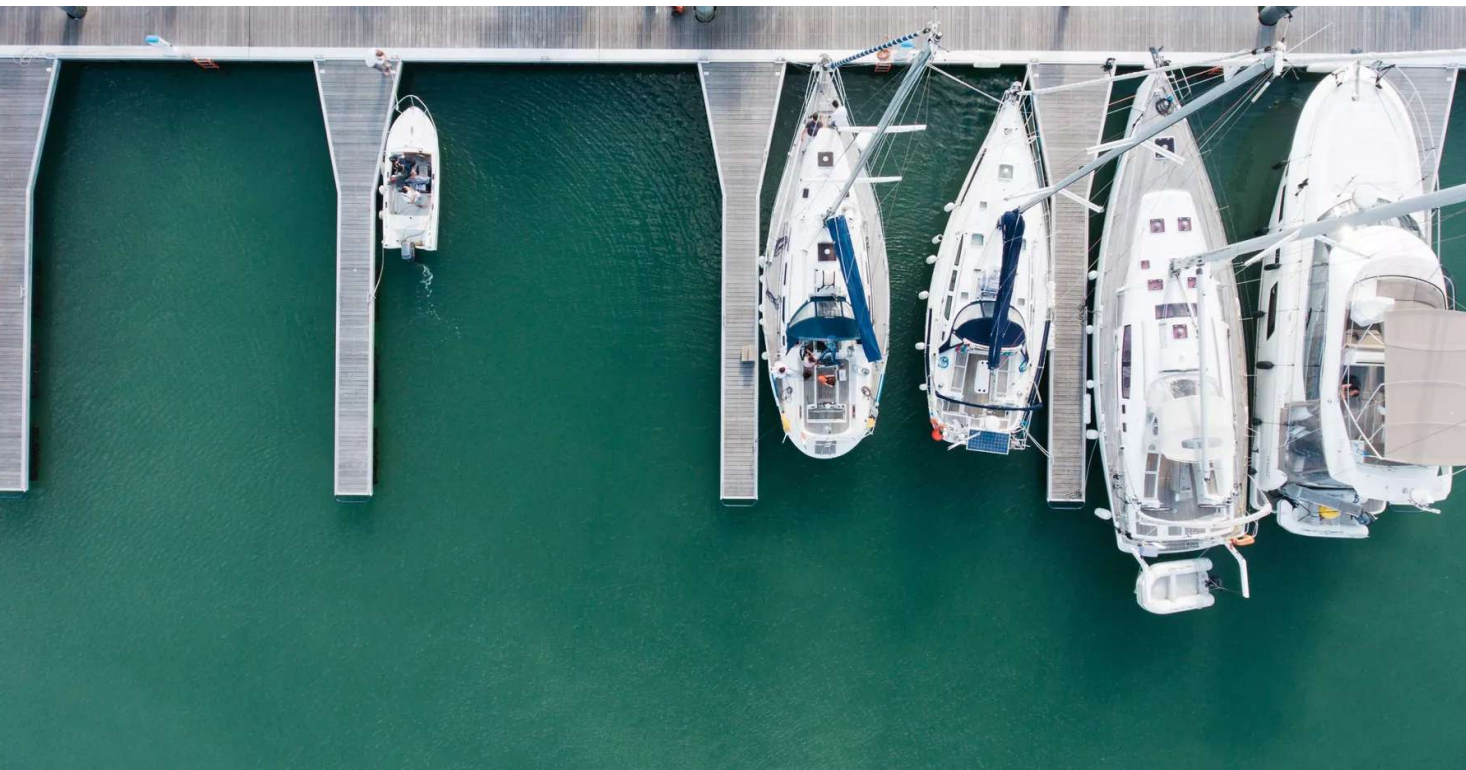
We create many different applications, including rigid and flexible trims, seals, and hoses; working with materials such as TPV, silicone, ABS and metalised PET on ABS (foil), for new or existing appliances.

Key applications

- Rigid and flexible trims
- Seals
- Hoses for ovens, freezers and refrigerators.



Marine



We know what it takes to create products that stand up to marine conditions. The profiles we develop, include rigid and flexible, are used for a variety of applications. Key materials we work with include TPV, silicone, PVC and ASA.

Key products

- Marina fenders
- Gunwale beads
- Hatch/porthole seals
- Marine weather seals



Medical

Our understanding of manufacturing nuances and our extensive experience in polymer extrusion and injection moulding makes us an ideal provider for anyone who needs quality, cost-effective polymer solutions for non-sterile applications.



Key products

- SCG1609
- Silicone tubing
- Flexible non-toxic PVC tubing
- Base isolators for medical equipment
- Bearing mounts
- Silicone grommets/washers
- TPV tubing
- Silicone rubber profiles

We partner with our clients in each to design, refine, and manufacture quality and robust products they're proud to take to the market.



Quality plus!

At EPL, 'quality' isn't just a buzzword or a box to tick.

Quality is something our reputation is built on, so we go to great lengths to guarantee it, checking and rechecking, testing and retesting our products until we're totally satisfied.

ISO 9001 registered since 1993, we go beyond this standard, using Net Inspect to provide further transparency across our quality assurance process.





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