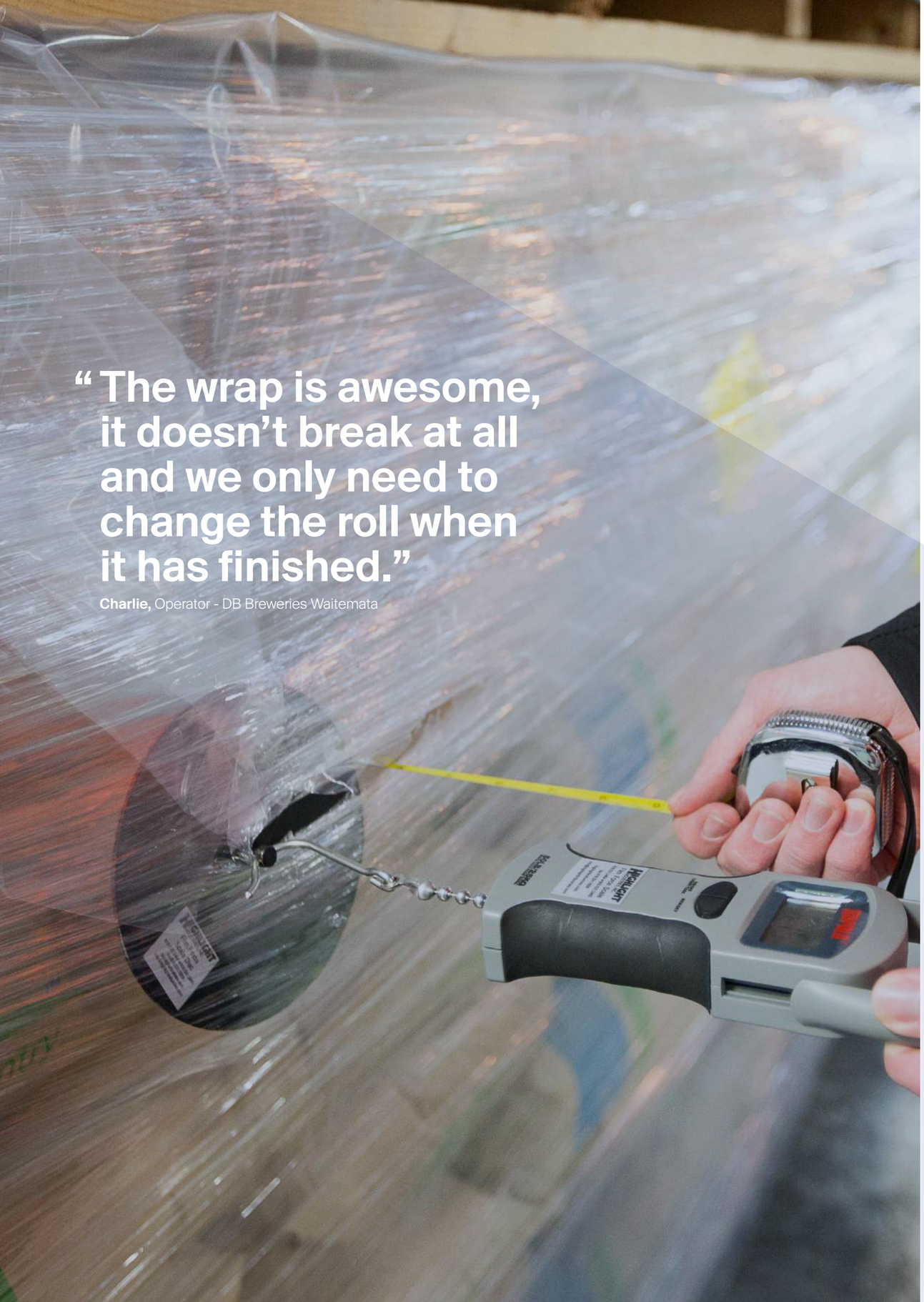
NANOWRAP

Bind together. Send secure.



“The wrap is awesome, it doesn’t break at all and we only need to change the roll when it has finished.”

Charlie, Operator - DB Breweries Waitemata

Universal Packaging
NanoWrap

33 layers of high performance film in one ultra-thin polymer.

Binding strength and puncture resistance.

Greater clarity and less noise.

Increased stretch and increased savings – over 35% when compared with previous films.

universalpackaging.co.nz

The world is changing.

As we've moved from Industry 1.0 to Industry 4.0 the way in which goods are packaged, protected and distributed has changed markedly. Industrialisation and growth without regard for the effects on the wider environment are no longer acceptable.

Traditional blown film packaging is no longer meeting either the efficiency or sustainability standards required by the modern business. Cast film is now in use by an ever-growing majority of pallet packaging users globally.

Leading the way here in New Zealand is Nanowrap – our cutting edge 33 layer cast film providing far greater benefits compared with the 5-7 layer blown film of yesterday.

Nanowrap is the new standard. Ultra-thin, incredibly light, extraordinarily strong, it's the cost-effective, wrap-efficient answer to your packaging challenges.

Industry 1.0
Steam power, mechanisation

1784

Battle of Waterloo inspires important Abba song

1815

Big Ben built in London

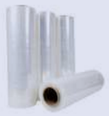
1859

Industry 2.0
Mass production, assembly lines

1870

Wright Brothers store carry-on luggage, fasten seatbelts

1903



The first blown film plant was patented in the US

1939

Sir Edmund Hilary looks down on Everest

1953

Plain, general purpose blown film available commercially since 1960's

1960

Are you moving with the times?

Blown and cast film. What's the difference?

There are two methods of producing stretch wrap. Blowing heated resin through a circular die into a bubble creates blown stretch film. The film is cooled by the surrounding air and then converted into rolls. Cast stretch film is created by extruding heated resin through a horizontal die and cooled with chilled rollers before converting into rolls. The cooling process produces different characteristics in the final product.

Properties	Blown Film	Cast Film	Nano Film
Film Clarity	Low gloss & visibility	High gloss, high visibility	High gloss, high visibility
Application Noise	Loud	Quiet	Quiet
Puncture Strength	High	Medium	High
Film Yield	Medium	High	High
Outside Cling	Transfers	Sticks only to itself	Sticks only to itself

Six o'clock closing ends

1967

Industry 3.0
Automation, computers

1969

Disco peaks

1979

Mike Catt debuts new 'judder-bar' defence on Jonah Lomu

1995

NanoWrap arrives in New Zealand

2016

Industry 4.0
Networks, the 'internet of things'

2017

Robot uprising, worldwide pizza shortage

2082

Time travel ensures Bill and Ted's excellent adventure

2688

Structure

NanoWrap's research and development focused on increasing structural strength and capacity without compromising durability or increasing wastage.

Successfully joining multiple layers into an ultra-thin polymer required the introduction of specialist technology and equipment. The result was 33 layers of high-performance raw material – a uniquely formulated film with a core formation delivering maximum load stability and stretch capacity with minimal weight.

A closer look.
Strength in unity.

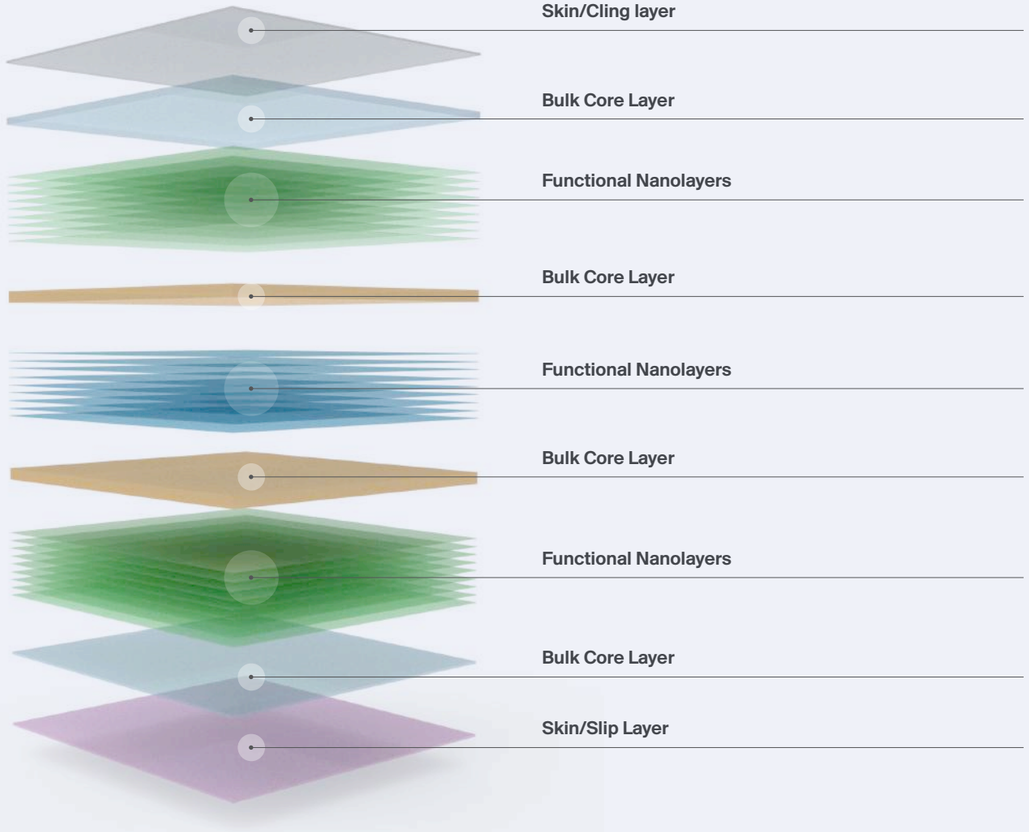
While not obvious on the surface level once you put NanoWrap under the microscope you'll see the difference in quality. Each of the three Nano layers are less than 1% of the overall film thickness, providing incredible strength without adding to the bulk or weight of the film.

Conventional blown film

5–7 layers

NanoWrap cast film

33 layers



Sustainability

The rational, forward-thinking company will always view wastage as unacceptable. It is responsible for ongoing inefficiency and negatively affects both profit and planet.

Every day we are all making small and simple changes in how we consume resources to reduce waste. So too is the design and use of products changing to reflect the growing need to reduce the impact our modern lives have on the wider environment.

Our responsibility must therefore always concentrate on how we can do more with less. It's why we're so proud of the gains that NanoWrap has made. It's how your move to NanoWrap is a small choice with a large impact.

Less is more.
A weighty issue.

Nanowrap can reduce film weight by a staggering 35%. That's right – this film delivers the exact same load coverage and containment as using far more conventional wrap.

This unique capability massively reduces film waste and subsequently minimises any potential landfill impact too. There's also a reduction on shipping weight. With less weight per pallet less fuel is needed. So you can reduce your carbon footprint by ensuring fewer resources are used with less waste as a result.

The bigger picture.
SCOPE insight and action.

We help Kiwi companies make sustainability gains with everything else around the pallet too. With an expert audit process we carefully assess warehouse flow, yield analysis, load containment and other key measures to ensure greater efficiency and less waste. We then use our advanced real-time pallet tracking system to keep our SCOPE perfectly targeted with each and every revolution of the wrapping machine.

Using this technology every load is wrapped correctly, containment is assured and delivery is damage-free. Companies can accurately track their wrap usage to ensure the lowest cost per pallet with least waste.

How to save the equivalent of 217,000 plastic bags (enough to cover Christchurch's Hagley Park in plastic 1¼ times)

An average HDPE plastic bag (the type previously in supermarkets) weighs about 6 grams. A DC may wrap 100 pallets each working day in old-fashioned blown-film wrap.

With the use of NanoWrap these centres will save around 50 grams on every pallet. This means in a year they've saved the equivalent of 217,000 plastic shopping bags.

35%

The film weight of NanoWrap is a third that of standard wraps, ensuring less fuel costs and a smaller carbon footprint.

100

The amount of pallets a roll of NanoWrap can cover (compared with 70 for regular film).

4

The recycle code for NanoWrap film, meaning this Low-Density Polyethylene is in NZ's most common reclaimed plastic category.

Stability

The 33 layers of Nanowrap deliver unrivalled performance levels in load distribution and damage resistance. Even though overall thickness is reduced compared with old-fashioned films, load stability is far higher.

Load stability is vital to the ongoing safe storage and transportation of your products. Here pallet wrapping must combine elasticity for containment and durability for protection, but do so in a way that is both cost-effective and time efficient.

Achieving the perfect balance between ‘better safe than sorry’ wastage and ‘we thought it was safe, we’re sorry’ breakage can be difficult. With NanoWrap you’ll have ultimate peace of mind that your pallet is packaged and protected.

Made to measure.
The toughness test.

The ASTM FPT-750 Puncture Test uses the dart punctures to determine the impact strength and/or toughness of plastic film. This test uses a single dart configuration and a single drop height, while varying the weight of the dart.

When compared with conventional film NanoWrap displayed significantly higher resistance to punctures.

Savings

Even the smallest gains can make a big difference in the logistical costs of a company. So when you are using up to 35% less wrap per pallet, well... those savings can be significant.

The best way to ensure a cost-efficient introduction of any new wrap product is with an initial SCOPE consultation from our technical sales team. With this expert evaluation you’ll receive all the relevant figures and the best way forward before any trial is undertaken. From there you’ll see the difference in costs for yourself.

Regular Film
100–200%
Stretch

NanoWrap
300–400%
Stretch

Case Study

Ingham's are the largest integrated poultry producer across Australia and New Zealand. They employ over 8,000 people, supply retailers, food service distributors and wholesalers, and produce and supply high quality stock feed to the poultry, pig, dairy and equine industries. With these numbers every pallet needs to be perfect.

In Hamilton, Ingham Feed and Nutrition have been working with the Universal team since 2014. We've been making sure their produce is wrapped right and working alongside them to help meet efficiency and waste minimisation goals. This is a significant focus for their sustainability strategy, which targets key areas in an overall 'zero waste' initiative.

After working closely with Luke Hill, Ingham's Hamilton Production Superintendant, we introduced NanoWrap to the DC. We wanted to be sure the wrap could work as advertised so ensured expert analysis was undertaken before the change.

One big change has been in the reduction of 'hands-on' time needed in coordinating between the pallet wrap and wrapping equipment. "We were constantly having to adjust rolls and tensions multiple times per roll," says Luke Hill. "This meant substantial amounts of time lost to maintenance."

> "We've had noticeably less breakages with NanoWrap. Where as before we were having these adjustments throughout the life of a roll we now almost never have to."

Luke is happy with the move to NanoWrap and happier still that such gains can be correctly measured. "The Universal team are always efficient and knowledgeable. They had all the data so we could make an informed decision on making any change."

Case Study

Along with a new Spinny S500 pallet wrapper NanoWrap was introduced to the Sanitarium distribution centre in 2018. The results of the move have delighted the team there. Pallets are being wrapped faster and more efficiently – and there are far less pallets of film needed on site.

Well known for making delicious food for Kiwis, Sanitarium needed their packaging processes to be as healthy as their products.

After closing the southern branch and moving everything to Auckland the busy FMCG brand undertook a packaging audit to see what could be improved on. This meant not just upgrading their wrapping equipment but also assessing if the pallet wrap in use was delivering the goods (in every sense of the phrase).

When the data came back it was obvious that a switch to NanoWrap would provide the best result. While the new wrap was more expensive per roll the actual film used per pallet had been reduced considerably, making the move a cost-effective one.

Peter Levett is the Distribution Manager at the distribution centre. Working closely with Universal Packaging in the auditing and scoping process he was confident of the change. Now, after a good amount of time has passed, he's very happy the commitment was made.

The results can be measured simply in the number of orders for new pallet wrap. "We used to buy a pallet of wrap every six weeks or so. Now we're buying one every six months," says Peter. "It's everything I thought it would be – and more."

> "We've also noticed a massive increase in productivity," he says, a combination of the new pallet wrapper and a decrease in wrap breakage packaging pauses.

Case Study

Mainfeeds are making light work of heavy pallets thanks to their change in pallet packaging product.

With mills in Otago, Auckland and the Manawatu, Mainfeeds has its hands full providing quality feed for hens, chickens, pigs, rabbits and dogs around NZ. Between these facilities over 140,000 tonnes of feed is produced annually, much of it shipped around the country.

Murray Collie is the Plant Manager in charge of the Mainfeeds Waikouaiti operation in Otago. "We've been wrapping pallets for 20 years now," he says. "These pallets go all around the South Island, and we need them to be secure."

While today things are running smoothly Mainfeeds distribution hasn't always been easy, with "breaks and shifting loads and the product damage that comes with it," says Murray.

> "It was always difficult to get the wrap we were using to provide adequate tension around the pallet," says Murray. "We're wrapping from small pallets up to the one tonne mark. Getting the balance of secure containment without tearing the wrap was always a balancing act."

In 2018 the company moved its nationwide operation to Nanowrap and, according to Murray, "we've never looked back. We're finding it's brilliant. There are no breaks, it can be wrapped consistently and it's easy to use – we've got no issues whatsoever."

With around 100 tonnes of bagged products going out the door weekly, having confidence that the wrap can carry the weight is crucial to the growing operation. So too is knowing there's additional support from Universal if it's ever needed.

"It's not just the wrap, it's the service too," says Murray. "Jed's always popping in when he's down here to check everything is working as it should, when we make an order the team are always easy to deal with, and the wraps always promptly delivered."

Case Study

After struggling with pallet wrapping product for some time the adoption of NanoWrap at Danone has resulted in less breakages, less waste, less time and less cost.

From their Auckland plant Danone Nutricia Early Life Nutrition provides a range of nutritional formulas and supplements to help keep New Zealand's mums and babies healthy and happy. The Auckland distribution centre is a busy place, with orders going out to hospitals and trade customers across Australia and NZ. Goods needed to be secured with care, and quickly.

However wrap was breaking with considerable frequency. Assistant Plant Manager Darryn Moore saw the consequences of an inferior product up close. "We were dumping half rolls because they just kept breaking," he says. "It was a frustrating process for everyone here."

Once the testing was completed the decision to switch to NanoWrap was easy. The change occurred in 2016, and since then the DC has been humming. "Using NanoWrap we don't have to stop and pull the roll off all the time," says Darryn, "The line just keeps on running."

It's not just the time improvements that have helped at Danone Nutricia. Increased cost effectiveness and general efficiency has ensured pallet productivity has gone up, as has the confidence goods will be sent out exactly when needed.

> "We are getting more pallets per roll with NanoWrap," says Darryn. "We've always got it close by too. Next day supply by Universal Packaging is excellent. If we ever run out of stock it's here before we know it, which is crucial to the delivery commitments to our customers."

Nano Range

NanoWrap

Code	Description	Rolls/Carton	Rolls/Pallet
20412	**NanoWrap 12** Machine Stretch Wrap 500mm x 2720m x 12mu	1	50
20415	**NanoWrap 15** Machine Stretch Wrap 500mm x 2175m x 15mu	1	50
20417	**NanoWrap 17** Machine Stretch Wrap 500mm x 1920m x 17mu	1	50
20420	**NanoWrap 20** Machine Stretch Wrap 500mm x 1630m x 20mu	1	50
20423	**NanoWrap 23** Machine Stretch Wrap 500mm x 1420m x 23mu	1	50

NanoWrap EW

Code	Description	Rolls/Carton	Rolls/Pallet
20475	**NanoWrap EW** Machine Stretch Wrap 750mm x 2175m x 15mu	1	25
20477	**NanoWrap EW** Machine Stretch Wrap 750mm x 1920m x 17mu	1	25

NanoWrap UVA

Code	Description	Rolls/Carton	Rolls/Pallet
20416	**NanoWrap UVA** Machine Stretch Wrap 500mm x 2175m x 15mu	1	50

NanoWrap H

Code	Description	Rolls/Carton	Rolls/Pallet
20459	**NanoH9** Hand Stretch Wrap 430mm x 300m	6	192

One small step for packaging effectiveness. One giant leap for sustainable efficiency.

From sugar to animal feed, cleaning products to baby food, leading New Zealand companies are discovering the difference NanoWrap can make to their profitability gains and sustainability achievements.

To receive a free one-hour site evaluation and packaging audit with one of our technical consultants contact our service team on 0800 700 000.

UNIVERSAL PACKAGING

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