



## NOVATION<sup>®</sup> range of starches

Clean and reliable formulations with

# Wholesome, natural ingredient solutions NOVATION<sup>®</sup> functional native starches

#### Consumers demanding simpler foods

Today's consumers are now better informed about culinary choices than ever before and their expectations of preprepared foods are rising. This has been fuelled not only by their increasing interest in and appreciation of food, but also a firm focus by industry, government and the media on the quality and type of foods we eat.

This focus is propelling a global trend for wholesome, natural and additive-free foods which is rapidly gaining momentum amongst mainstream consumers.

Today's demand is for convenient, fresh, simple foods using only ingredients consumers know and trust. Front and back of pack label declarations are key purchase drivers and consumers increasingly want to see ingredients they'd find in their own kitchens — not additive numbers.

But they won't sacrifice time or quality. The challenge for food manufacturers as a result, is to develop great tasting, quickly prepared food that excites the senses to keep consumers coming back for more.

How can we help you to develop high value products that meet this growing consumer trend? The answer may be as simple as NOVATION<sup>®</sup>, a range of nature-based starches which are designed to withstand modern food processing techniques.



### Superior texture, taste, stability and functionality

#### Ingredion recognised the trend for simpler, more natural foods early, commercialising a range of wholesome, starchbased ingredient solutions from natural sources - including maize, waxy maize, tapioca, rice and potato.

The NOVATION® range of premium performance functional native starches were developed using revolutionary patented processing technology, delivering the important food processing attributes of traditional modified starches - but with a noticeable difference.



Providing all the shear, pH and process tolerance, viscosity, texture and shelf stability of traditional modified starches, the NOVATION® range is identified simply as 'starch' on the ingredients label of the final food product.

NOVATION<sup>®</sup> has a clean flavour profile which allows the inherent flavours to prevail. With instant options available, production can be simplified by avoiding the need to heat the starch prior to use, while delivering good batch-to-batch consistency. Need exceptional freeze/thaw and shelf life stability without gelling, syneresis or graininess? There's a NOVATION<sup>®</sup> concept for that, too.

NOVATION<sup>®</sup> solutions are ideal for use in a wide range of applications including ready meals, gravies, soups, sauces, fruit preparations, yoghurts, dairy desserts, baby foods, as well as a variety of chilled or frozen foods.

Open up a wealth of new opportunities in additive-free, premium convenience or organic foods. Just ask us about our NOVATION® range.

### NOVATION<sup>®</sup> in application

As your partner in innovation, we can provide detailed advice on the optimum starch combination to meet specific processing and shelf life conditions, delivering the required end product attributes.

| Primary application   | Ingredion recommends                   | Features & Functions  |
|---|--|---|
| Soups, sauces, gravies<br>and fillings                                  | NOVATION <sup>®</sup> Endura range     | Viscosifying starch with superior shelf stability as well as exceptional resistance to heat, acid and shear.  |
|   | NOVATION <sup>®</sup> Prima range      | Process stable, water-binding viscosity starches with excellent shelf-stability.  |
|   | NOVATION <sup>®</sup> 2300             | Viscosifying starch. Excellent resistance to heat, acid and shear.  |
|   | NOVATION <sup>®</sup> 2600             | Viscosifying starch. Moderate resistance to heat, acid and shear.   |
|   | NOVATION <sup>®</sup> 2700             | Viscosifying starch. Low to moderate resistance to heat, acid and shear.  |
|   | NOVATION <sup>®</sup> 8300             | Superior shelf stability. Excellent resistance to heat, acid and shear.   |
| Instant soups, sauces,<br>gravies, dry mixes, fillings<br>and dressings | NOVATION <sup>®</sup> 4600             | Cold water functioning with all the quality of cook-up starch. Easy-<br>to-use with excellent water-binding properties. Heat, acid, shear and<br>shelf life stable.             |
|   | NOVATION® 5600                         | Easy to disperse, cold water functioning with all the quality of cook-<br>up starch. Easy-to-use with excellent water-binding properties. Heat,<br>shear and shelf life stable. |
| Frozen and refrigerated<br>soups, sauces, gravies and<br>ready meals    | NOVATION <sup>®</sup> Endura range     | Viscosifying starch with exceptional resistance to heat, acid and shear.  |
|   | NOVATION <sup>®</sup> Prima range      | Process-stable, water-binding viscosity starches with superior freeze/ thaw stability.  |
| Meat and fish   | N-HANCE <sup>™</sup> 59                | Cost effective. High performance. Easy to use.  |
|   | NOVATION <sup>®</sup> 1900             | Cost effective. High performance. Easy to use.  |
| Dairy Products (Yoghurt,<br>dairy drinks)                               | NOVATION <sup>®</sup> Endura range     | Good stability as well as exceptional resistance to heat, acid and shear.   |
|   | NOVATION® 3300                         | Excellent resistance to heat and shear. Moderate resistance to acid.<br>Low hot viscosity.  |
|   | NOVATION <sup>®</sup> 2300             | Excellent resistance to heat, acid and shear.   |
| Fruit preparations  | NOVATION <sup>®</sup> Endura range     | Exceptional resistance to heat, acid and shear.   |
|   | NOVATION® 8300                         | Excellent resistance to heat, acid and shear with superior freeze/<br>thaw stability.   |
|   | NOVATION <sup>®</sup> 8600             | Process stable, water-binding viscosity starches with superior freeze/<br>thaw stability.   |
| Baked Goods   | NOVATION <sup>®</sup> 4600             | Shelf life extension. Fine, uniform cell structure. Improved flavour release.   |
|   | NOVATION <sup>®</sup> 2560             | Shelf life extension. Fine, uniform cell structure. Improved flavour release.   |
|   | HOMECRAFT <sup>™</sup><br>Create GF 20 | Unique functional flour blend that provides moist, non-gritty texture.<br>Target application areas include bread, cookies, brownies, and<br>crackers.                           |
| Beverages   | NOVATION <sup>®</sup> 5600             | Easily dispersible.   |
|   | NOVATION <sup>®</sup> 5300             | Easily dispersible, recommended for UHT processing.   |
|   | NOVATION <sup>®</sup> 9560             | Organic label, functionality of NOVATION® 5600.   |
| Organic positioning   | NOVATION <sup>®</sup> 9230             | Excellent resistance to heat, acid and shear. Excellent flavour profile.  |
|   | NOVATION <sup>®</sup> 9330             | Highly resistant to heat and shear. Moderate resistance to acid. Low hot viscosity. Excellent flavour profile.  |

#### Supporting your business with innovative solutions

As a leading global supplier of nature-based functional and nutritional ingredients solutions for the food and beverage industries, Ingredion can work with you to select the ingredient that best suits your processing conditions and end product specifications.

Our specialist R&D, technical and applications teams can help with formulations, product trials, legislative advice and labelling issues. We are involved in every aspect of food formulation including texture, nutrition and encapsulation.

Our vision, combined with an extensive, award-winning product range, market knowledge and technical expertise, makes

Ingredion a partner of choice for the next generation of food producers.

To find out more about consumer trends and insights, case studies or to obtain application advice from us, please visit **ingredion.com/apac**.



Engage the clean label experts for your next product success. +65 6872 6006 | ingredion.com/apac



Developing ideas. Delivering solutions.

**Ingredion Singapore Pte Ltd** 21 Biopolis Road, #05-21/27 Nucleos, Singapore 138567

The information described above is offered solely for your consideration, investigation, and independent verification. It is up to you to decide whether and how to use this information. The Ingredion group of companies makes no warranty about the accuracy or completeness of the information contained above or the suitability of any of their products for your specific intended use. Furthermore, all express or implied warranties of noninfringement, merchantability, or fitness for a particular purpose are hereby disclaimed. The Ingredion group of companies assumes no responsibility for any liability or any and the foregoing.

The product trademarks above, the INGREDION trademark and logos are trademarks of the Ingredion group of companies and used in Asia Pacific by Ingredion Singapore Pte Ltd. All rights reserved. All contents copyright © 2016.