

# Cutting costs, maintaining quality



Reducing recipe costs is a top priority for manufacturers. Cost savings can be achieved by using functional starches to replace everyday ingredients such as dairy solids like milk proteins and fat.

By closely mimicking essential texture and performance, our breakthrough solutions can help to optimise costs without sacrificing eating quality and visual appeal. Speciality starches have a proven ability to replace ingredients, while maintaining the necessary viscosity and texture that consumers look for.

## No compromise on taste and texture

Texture plays a key role in the overall eating experience of dairy foods. Co-texturisers such as Ingredion's **N-DULGE®** range, maintain textural attributes and help to keep costs low by replacing more expensive ingredients.

Our **N-DULGE® C1** and **C2** starches can be used to substitute fats in dairy desserts, such as puddings, vlas, custard and ice cream, as well as in dairy beverages, flavoured yoghurts and yoghurt drinks. These starches also build back mouthfeel and indulgent textures to help ensure a pleasurable eating experience.



**N-CREAMER® 221** starch thickening agent for foods and beverages is a speciality tapioca starch that mimics the functionality of milk solids in regular and low-fat dairy products such as drinks, desserts and flavoured yoghurts. It delivers a smooth, creamy and full-bodied texture with a clean taste and fast meltaway.

**N-CREAMER® 110** starch is an effective pectin replacer which stabilises acid dairy drinks by preventing phase separation and sedimentation.

Clean label co-texturisers, labelled simply as 'starch' can also be used to enhance the textural quality in a variety of dairy foods.

**NOVATION® Indulge 3920** and **NOVATION® Indulge 1720** food starches are high performance clean label ingredients which impart a sumptuous creamy texture in dairy products and enable manufacturers to replace costly ingredients such as fat (**NOVATION Indulge 3920**), and protein (**NOVATION Indulge 1720**).



Designed for spreadable and block processed and analogue cheese, **ELASTIGEL™ 1000J** starch is a gelling agent that helps save costs by reducing casein, without compromising on the high quality texture of the product. For casein replacement especially in analogue pizza cheeses, **GEL 'N' MELT™** starch provides a highly functional alternative to imported rennet casein and sodium or calcium caseinate in keeping the firmness and meltability of the cheese product. Combined with the gelling agent **FLOJEL® 60** starch, which keeps the desired firmness in the final product, **GEL 'N' MELT** helps to dramatically reduce formulation costs. **PRECISA® GEL 04**, an instant modified starch gelling agent, enables casein and hydrocolloid replacement in spreadable processed cheese or cream cheese preparations. It functionalises at low temperatures of around 85 °C, and is particularly suitable for low moisture systems.

# Our solutions at a glance

Highly process tolerant, our ingredients offer superb stability and deliver desirable textures for numerous dairy applications.

	N-DULGE® C1 / C2 / CA1 /SA1 co-texturisers	N-CREAMER® 221 starch	N-CREAMER® 110 starch	NOVATION® Indulge 3920 starch	ELASTIGEL™ 1000J starch	GEL 'N' MELT™ starch	FLOJEL® 60 starch	PRECISA® GEL 04 starch	NOVATION® INDULGE 1720 starch
Fat replacement	✓			✓					
Reduce protein/ casein content		✓	✓		✓	✓	✓	✓	✓
Pectin replacement			✓						

## Applications overview

Dairy application	N-DULGE® C1 / C2 / CA1 /SA1 co-texturisers	N-CREAMER® 221 starch	N-CREAMER® 110 starch	NOVATION® Indulge 3920 starch	ELASTIGEL™ 1000J starch	GEL 'N' MELT™ starch	FLOJEL® 60 starch	PRECISA® GEL 04 starch	NOVATION® INDULGE 1720 starch
Yoghurt and yoghurt drinks and dairy drinks	✓	✓	✓ (acid)	✓ (yoghurt)					✓ (yoghurt)
Dairy desserts	✓	✓		✓					
Dairy dips				✓					
Spreadable processed cheese and cream cheese preparations	✓		✓ (spreadable processed cheese)		✓ (spreadable processed cheese)		✓ (spreadable processed cheese)	✓	
Block analogue processed cheese and pizza cheese					✓	✓ (pizza)	✓		
Burger slices					✓	✓	✓		

Find out more  
[ingredion.com/emea](http://ingredion.com/emea)

CONTACT US AT:

Ingredion Germany GmbH  
**+49 (0) 40 23 91 50**  
[dairy@ingredion.com](mailto:dairy@ingredion.com)

Ingredion UK Limited  
**+44 (0) 161 435 3308**



**Ingredion™**

Developing ideas.  
Delivering solutions.™

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. Ingredion Incorporated and the Ingredion group of companies make 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. Ingredion Incorporated and the Ingredion group of companies assume no responsibility for any liability or damages arising out of or relating to any of the foregoing.

The N-DULGE, N-CREAMER, NOVATION, ELASTIGEL, GEL 'N' MELT, FLOJEL, PRECISA and INGREDION marks and logo are trademarks of the Ingredion group of companies and are used in Europe by Ingredion GmbH and Ingredion UK Ltd. All rights reserved. All contents copyright © 2013.