



improve
texture

Set your products apart with innovative textures.

Snacks that snap, shatter, crunch and satisfy



Ingredion™

Gabriele, selective snacker

In snacks and most everything, Gabriele knows exactly what she wants. This active millennial works long hours at her technology job but manages to teach Zumba two nights a week and volunteer in a literacy program on weekends. Most afternoons, she enjoys a light, crispy chip that engages her senses. It has to deliver just the right mouthfeel and flavor with a minimum of calories and fat.

What will Gabriele want next? You can create her next favorite snack in less time and at lower cost than you might think. Just put our texture expertise and unique DIAL-IN® Technology to work to help develop your next chewy, crunchy, crispy or CRINCHY™ success.





Snacking fun means business

Sixty percent of consumers say they often snack for enjoyment, not hunger.¹

Overall, snack consumption is on the rise with more than half of consumers (51%) reporting that they eat snacks at least twice a day—an increase over 2012.² And more than a third of consumers say they’re snacking more frequently than they were two years ago.²

Taste, texture and many other things make a snack satisfying, but “crunch” is a critical component.³ In salty snacks, for example, consumers seek multi-textural experiences, including different levels of crunch in one product.³ No matter what snack attributes your consumer craves, there’s a world of opportunity waiting to be discovered with innovative textures.

Profitable snack products start here.

The experts of Ingredient can help you create the unique textural experiences your consumers are looking for in snacks. These range from tender and delicate crispy textures, to snapping or shattering crunchy textures—and in between to a new region we call CRINCHY™ textures.

Start with a core of proven baked snack texturizers for your sheeted cracker and fabricated chip texture needs.

Specialty Texturizers for Snacks	Base	Product Labeling
BAKA-SNAK®	Corn	Food starch – modified
ULTRA-CRISP®	Corn	Corn starch
INSTANT TEXTRA®	Tapioca	Food starch – modified
CRISP FILM®	Corn	Food starch – modified
HEMOCRAFT® Express T37	Tapioca	Tapioca starch

We can also look to our broader portfolio of specialty texturizers to ensure we specify the right starch or combination of products to suit your unique needs.

Process flow

Specialty texturizers can add functionality throughout the process, leading to a better end product



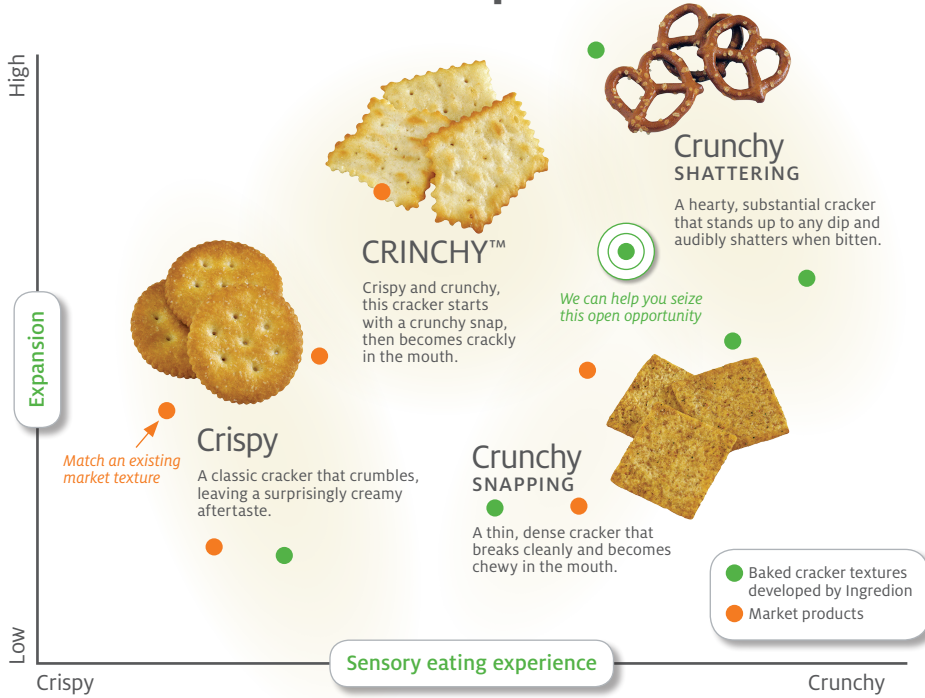
Differentiated texture

¹ State of the Snack Industry, SymphonyIRI Group, 2012

² The Snacking Occasion consumer Trend Report, Technomic, Inc., 2014

³ Voice of the Consumer: Texture and Salty Snacks, conducted by The Cornell Group for Ingredient, March 2014

Baked cracker texture map



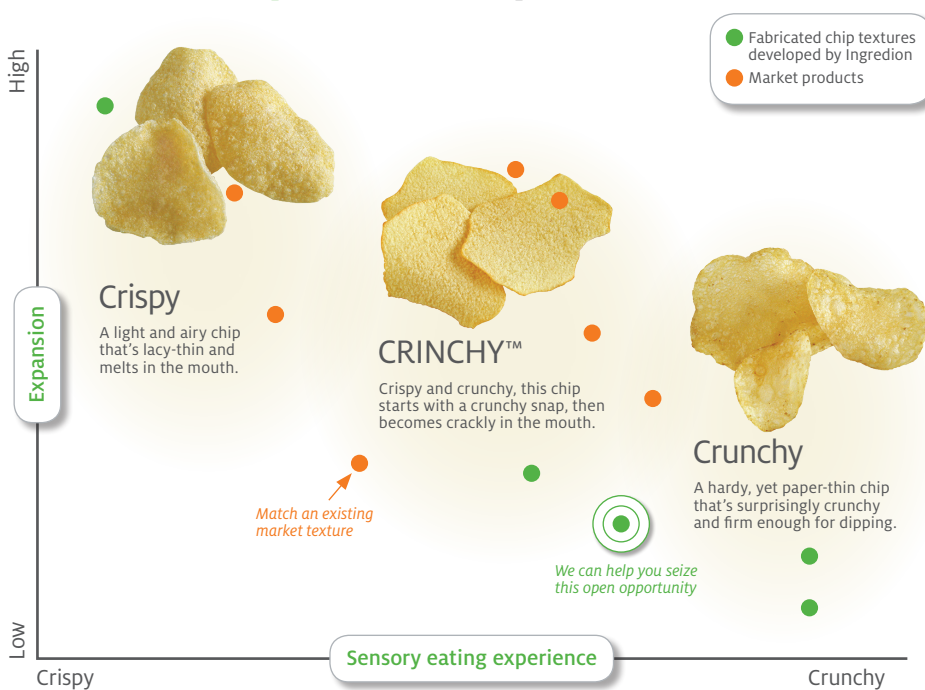
A solution uniquely yours.

Reaching your texture target is a complex process involving formulation, processing conditions, moisture level adjustments and selecting the right texturizer. Our experts will help you achieve a multi-faceted solution. Here are just a few of the possibilities:

- **Create a target texture** by a different formulation and process
- **Save time in production** (no fermentation time or additional drying time needed)
- **Produce a tender cracker** without fermentation
- **Fabricate a crisp, crunchy or CRINCHY product** without frying
- **Deliver an uncompromising, satisfying texture** in low-fat formulations
- **Boost nutritional content** while achieving the desired texture

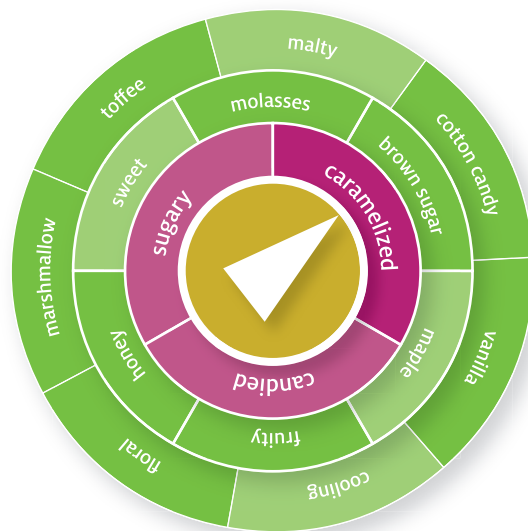
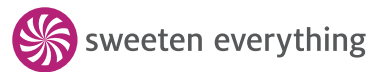
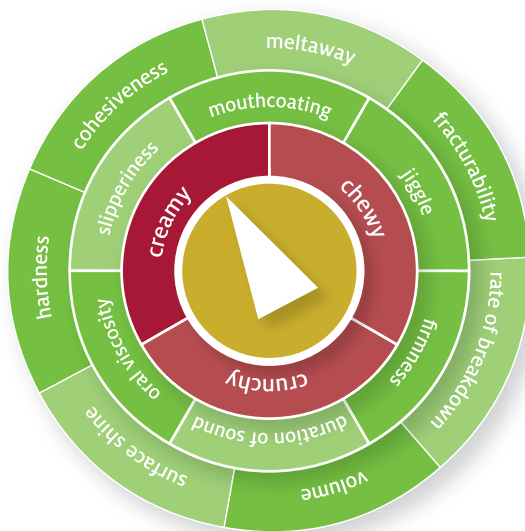
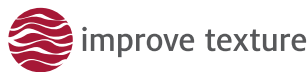
Our texture, formulation and processing expertise is reflected in the texture maps. With these maps, we can help you match an existing market texture or achieve something unique.

Fabricated chip texture map



DIAL-IN® Technology

Take the shortest path to the perfect texture and sweetness



- 1 set your goals
- 2 gather insights
- 3 set sensory targets
- 4 understand your process
- 5 formulate product

Your perfect snack product texture starts with our proprietary DIAL-IN Texture Technology, a rapid, robust, data-driven approach that enables us to help you:

- Build back texture when ingredients are reduced or removed for label claims or to optimize costs
- Ensure great texture when nutrition ingredients such as fibers are added
- Match benchmark consumer-preferred textures
- Create a signature texture for a new product
- Develop a continuum of new products with unique, appealing textures

Ingredient capabilities inform every step of the process. We invite you to learn about our TEXICON® texture language, which translates the consumer eating experience into the technical language of

formulation. Ask about our T-REX® automated rheology lab, where we screen texture solutions 10 times faster than traditional methods.

Balancing texture with sweetness

At the same time, we'll help you reduce sugar while maintaining product functionality in your product, using our DIAL-IN Sweetness Technology. As with texture, our consumer insights, sensory evaluation, application expertise and processing knowledge come together—so you achieve the right sweetness profile, balanced with texture—all with less trial and error for faster time to market.

Together, let's discover profitable new frontiers in snacks.

Tap into our full range of capabilities— right here and around the world

Look to Ingredion for ingredient solutions that deliver exceptional performance and market-leading innovation. Our geographic footprint and diverse organization give us the capability to help you on a global scale and the agility to meet your needs in all of your local markets.



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Achieve the perfect food texture in a fraction of the time with our robust, data-driven, consumer-centric DIAL-IN® approach.



DIAL-IN®

DIAL-IN®

Benefit from a robust, data-driven approach to quickly achieve optimal sweetness and texture.



sweeten
everything

sweeten everything

Leverage our sweetness expertise, DIAL-IN® Technology and broad sweetener portfolio to get the perfect balance of taste and texture.



TEXICON®

TEXICON®

Translate the consumer experience of texture into precise, measurable, scientific terms that help you quickly target and achieve the perfect texture in your products.



optimize
sensory

optimize sensory

Translate consumer sensory preferences into finely tuned sensory attributes in your finished products.



T-REX®

T-REX®

Accelerate texture characterization and new functional systems with advanced robotic technology that works 10 times faster than when using traditional methods.



perfecting
formulations

perfecting formulations

Achieve maximum product appeal while realizing the benefits of cost-optimization throughout the formulation process.



Ingredion™

Developing ideas.
Delivering solutions.™

Ingredion Incorporated
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Westchester, IL 60154

Engage the texture experts at Ingredion
for your next formulation challenge.

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