GRINDSTED® Pectin
Clean-label, natural stabilizers that provide gelling, texture and enhanced mouthfeel across a range of food products
A popular clean-label, natural stabilizer from citrus fruits

GRINDSTED®
Pectin

Pectin provides gelation, viscosity, texture and protein stability in a range of food applications. It is a natural hydrocolloid present in plants and is a source of soluble dietary fiber. In addition to its traditional use in jams, jellies and sugar confectionery, pectin improves the mouthfeel and taste profiles of beverages and yogurts even in low-sugar applications with an improved nutritional profile.

DuPont Nutrition & Biosciences is one of the largest suppliers of pectin and we have an extensive understanding of pectin’s unique properties. Our raw materials and processes are carefully chosen to create specialty pectin for a variety of applications.
Grindsted® Pectin supports the development of plant-based food by enhancing texture and mouthfeel.

- Consumer-friendly, clean-label ingredient
- Accelerates and simplifies the development cycle
- Tolerates wide parameters in processes and recipes

Aligned with trends - how we help

**Clean label**

Pectin is a consumer-friendly ingredient that has long been used in homemade jams and jellies. It shortens lists of ingredients by removing the need for calcium salts that are added to improve the texture of low-sugar jams.

**Plant based applications**

Grindsted® Pectin supports the development of plant-based food by enhancing texture and mouthfeel.

**Sustainability**

Our pectin production is a good example of the circular economy. Our pectin is extracted mostly from citrus peel by-products from the juice and citrus oil processing industries. These by-products would otherwise have been used as animal feed or wasted.

Grindsted® Pectin supports at least four of the United Nations Sustainable Development Goals:
DuPont delivers value beyond pure pectin supply

**Solution capabilities**

- Industry leading Food & Beverage application scientists ready to create customer specific solutions drawing from a uniquely broad ingredient and technology portfolio
- Application specific pectin grades offer value improvement for our customer across many applications
- Tailor made functionality to optimize reactivity with each application

**Supply reliability**

- SEMI production on two continents to secure un-interrupted supply and provide contingencies
- Regional standardization / FINI production close to customers on demand and tailored to customer requirements
- Peels: DuPont has established stringent quality specifications and routinely audit suppliers. Our technical experts support improving manufacturing processes at existing and future suppliers

**Peace-of-mind**

- World-class Quality Management System to secure highest levels of quality and food safety
- More than four decades of production experience
- Sustainability: DuPont was the first in the industry to complete a Life Cycle Assessment on pectin which was third party reviewed and ISO 14044 compliant

**Customer proximity**

- DuPont has application experts and labs in all major markets
- Regional standardization FINI production close to customers on demand and tailored to specific requirements
- Global reach of direct sales force
GRINDSTED® Pectin

Applications and range

### Juice & reduced sugar beverages
- Viscosity
- Texture / mouthfeel
- Excellent flavor release

### Low pH dairy and plant based protein beverages
- Protein stabilization
- Viscosity
- Texture / mouthfeel

### Confectionery
- Gelling
- Set temperatures
- Texture

### Spoonable fermented products
- Texture
- Mouthfeel

### Jams, jellies & fruit spreads
- Gelling
- Spreadability
- Suspension
- Syneresis control

### Fruit preparations for different applications
- Suspension
- Texture
- Flavor release
- Syneresis control
- Bake stability
<table>
<thead>
<tr>
<th>Product range</th>
<th>Benefits</th>
<th>Application</th>
</tr>
</thead>
</table>
| GRINDSTED® Pectin AMD  | Prevents protein sedimentation and whey off. Controls viscosity and builds texture. Replaces texture when milk solids, fat and/or sugar are reduced                                                                 | Protein stabilization for:  
• Low pH dairy protein drinks  
• Plant-based fermented products  
• Fruit preparation for spoonable plant-based or dairy products                                                                                                                                 |
| GRINDSTED® Pectin SF EXTRA | Provides a soft and spreadable texture. Performs across a variety soluble solids, pH levels, fruit types and filling temperatures. Tolerates wide parameters in processes and recipes. Adds shine to products | Spreadability and suspension for:  
• Jams  
• Jellies  
• Fruit spreads                                                                                                                                 |
| GRINDSTED® Pectin YF   | Thixotropic texture properties that quickly regain viscosity. Creates a gel network with high yield value to suspend fruit pieces throughout the tote. Works over a broad formulation and fermented mass range. Provides excellent flavor release. Allows for texture modification | Compatible with fermented mass; provides suspension and texture for:  
• Fruit preparations for fresh fermented dairy products such as spoonable/drinkable yogurt  
• Fruit preparations for fermented plant-based spoonable/drinkable products                                                                                                                                 |
| GRINDSTED® Pectin CF   | Uniform gelling provides a clean-cut and shiny appearance. Low setting temperature required for processing. High heat stability improves tolerance to manufacturing, transport and consumption in warm climates | Gelling, low setting temperatures and texture for:  
• Sugar confectionery  
• Fruit roll-ups  
• Jellies  
• Chews                                                                                                                                 |
| GRINDSTED® Pectin SY   | Builds body and viscosity for a smooth texture and shiny appearance. Maintains texture throughout shelf life and prevents syneresis. Replaces texture in formulations designed to reduce cost and/or calories | Texture and mouthfeel for:  
• Fermented plant-based products  
• Fermented dairy products, including yogurt                                                                                                                                 |
| GRINDSTED® Pectin PRIME | Multipurpose pectin range that works over a wide variety of applications. Its versatility makes developing line extensions easy. Accelerates the development cycle as it tolerates wide parameters in processes and recipes. Reduces inventory | Spreadability, suspension, texture and flavor release for:  
• Fruit spreads and fruit preparations  
• Bakery fillings and glazes  
• Sauces, toppings, ripples and compotes                                                                                                                                 |
| GRINDSTED® Pectin JD   | Increases texture and flavor of fruit. Reduces costs. Helps reduce sugar content with compromising texture | Viscosity, mouthfeel and flavor release for:  
• Juices  
• Reduced sugar beverages                                                                                                                                 |
| GRINDSTED® Pectin HE   | Provides uniform gelling and syneresis control in high sugar jams and jellies                                                                                                                              | Gelling for:  
• High sugar jams and jellies                                                                                                                                 |
| GRINDSTED® Pectin LC   | Works over a wide variety of applications with organic or clean label requirements. Offers excellent flavor release. Provides bake stability                                                                 | Texture, suspension and syneresis control for:  
• Clean label/organic products  
• Fruit spreads and fruit preparations  
• Bakery fillings and glazes  
• Sauces, toppings, ripples and compotes                                                                                                                                 |
| GRINDSTED® Pectin LA and SF | Provides a gel network that ensures texture, suspension and syneresis control. Wide product range designed to perform across a variety of soluble solids, pH levels, fruit types and filling temperatures | Gelling, suspension and syneresis control for:  
• Low sugar jams  
• Jellies  
• Fruit spreads                                                                                                                                 |
About DuPont™ Danisco®

DuPont™ Danisco® is the brand for a range of ingredients that help provide enhanced bioprotection, an improved nutritional profile, and better taste and texture with greater cost efficiency and lower environmental impact, meeting the needs of manufacturers of food and beverages, dietary supplements and pet food. Through the work of the global network of food scientists and technologists in DuPont, the Danisco® range is supported by a uniquely broad spectrum of know-how across applications and processing.