



Palsgaard®

GLOBAL PRODUCT CONCEPT – PLANT BASED-FROZEN DESSERT

Fava Bean Frozen Dessert (water base)

Prepared by Palsgaard's Global Industry Team Ice Cream – by Marilyn Tan

GLOBAL PRODUCT CONCEPT – PLANT-BASED FROZEN DESSERT

Fava Bean Frozen Dessert (water base)

BACKGROUND

The market for plant-based frozen desserts / vegan ice cream is growing rapidly. But, as consumers expect the same properties as from a conventional ice cream in terms of creaminess, heat shock stability and melting resistance, manufacturers are in for a challenge. With a good emulsifier/stabiliser system and advice from Palsgaard on process and protein sources you'll be off to a good start.

CHALLENGES IN PRODUCT DEVELOPMENT

- High viscosity
- Poor overrun
- Poor mouthfeel
- Poor meltdown and heat shock performance
- Serum separation in plant-based frozen dessert mix

PALSGAARD TECHNOLOGY

Palsgaard® Extrulce 379

Integrated mixture of emulsifier and stabilisers

Ingredient declaration:

- Mono- and diglycerides of fatty acids E 471
- Guar Gum E412
- Cellulose gum E466
- Carrageenan E407 (standardized with sucrose)
- Anti-oxidant

PRODUCT ADVANTAGES

- Cold dispersible
- Facilitates the incorporation of air into mix giving a high and stable overrun
- Prevent formation of ice crystals hence giving a creamy and uniform texture
- Provides dryness on extrusion and excellent stand up and meltdown properties
- Protects the ice cream / plant-based frozen dessert against heat shock damage when exposed to fluctuating temperatures during distribution and storage
- Attractive cost-in use
- Kosher / Halal certified
- Produced in CO₂-neutral factories

PALSGAARD® EXTRULCE 379

Fava Bean Frozen Dessert – Recipe Suggestion



Recipe

	Percentage
Palsgaard® Extrulce 379	0.50
Sugar	12.00
Glucose Syrup	10.00
Hydrogenated Coconut Oil ²	10.00
Faba bean Isolate FB65 ³	1.60
Salt	0.10
Water up to	100.0%

¹ From Pure Harvest

² From Oleo Fats

³ From Herba

Composition

	Percentage
Fat	9.99
Protein	1.04
Palsgaard® Extrulce 379	0.50
Total Solids	30.76

Procedure

- Hydrate fava bean isolate at 70°C for approximately 20 minutes, under constant shearing
- Pre-blend **Palsgaard® Extrulce 379** with sugar and add into the frozen dessert mix while stirring.
- Add the rest of the ingredients to the solution; mix well.
- Add melted fat while stirring.
- Pre-heat to 65°C - 75°C.
- Homogenize at 140 bars (single stage).
- Pasteurize at 80°C for 30 seconds.
- Cool to below 4°C and age for minimum of 4 hours.
- Freeze using ice cream churner.

ORDER SAMPLES

To order samples of Palsgaard® Extrulce 379, please contact your local Palsgaard office via Palsgaard.com