

Pineapple Pomace Powder

It is a free-flowing powder with a neutral taste, is rich in Dietary Fiber and minerals such as Potassium and Magnesium.



Physical & Chemical Properties

Total Dietary Fiber	>65%
Potassium	4500 - 5000 ppm
Magnesium	350 - 450 ppm
Calcium	750 - 850 ppm
Iron	NMT 50 ppm
Phosphorus	NMT 450 ppm
Moisture content	<5%

Sensory Information

Colour	Light yellow/white/cream
Appearance	Free flowing powder

Note

- Parts used: Pressed Pulp after Juicing operations
- Initial results from a few trials. Trials are still ongoing for various iterations (process parameters & upstream variables)

Pineapple pomace Powder Waste



Sieving (#45 mesh)



Sieving (#80 mesh)

Potential Applications



Due to its nutritional and functional benefits it can be used as an ingredient in various applications in bakery, snacks beverages and health supplements for fiber enrichment. It can also be used as texturizer in products such as extruded snacks, bread, biscuits , baby food etc.

FIBER ENRICHED WHEAT BREAD

Pineapple Pomace Powder can be added to increase dietary fibre of wheat bread. At 5% addition, it doesn't alter specific volume and texture by a lot, and also increases the total fiber content.

FIBER ENRICHMENT- EXTRUDED SNACK

Pineapple Pomace Powder can also offer fiber enrichment of nutritionally poor products, such as some extruded snacks. Up to 10% could be added without affecting the properties of the final extruded product.

FORTIFIED BISCUITS

Fibre rich biscuits can be prepared by substituting whole wheat flour with Pineapple Pomace Powder at 5% or 10%, this can help increase crude fiber, ash content and hardness of the biscuits.

BABY FOOD

A study, utilized pulse, pineapple pomace and banana flour to increase the nutritional value of weaning food and the sensory evaluation showed promise for satisfying consumer taste and preferences in the market.

Bromelain

Manufactured by deploying several physical extraction and separation unit operations on freshly harvested pineapple stems from Dole's sustainably-managed plantations in the Philippines



Physical & Chemical Properties

Enzyme Activity	Above 1200 GDU/g Food Grade (>1200) Nutraceutical (2400)
Moisture content	7-8%
Mesh size (40 Mesh)	NLT 98%

Sensory Information

Colour	Light yellow/white/cream
Appearance	Free flowing powder

Note

- Parts used: Pineapple Stem
- Initial results from a few trials. Trials are still ongoing for various iterations (process parameters & upstream variables)

Bromelain

Anti-Inflammatory

Clinical trials have shown promising results in relieving symptoms of general, nose inflammation and breathing difficulties (acute sinusitis).

Proteolytic activity

It helps to breakdown protein into amino acids which aids in digestion. The same activity also helps to tenderize meat.

Anti Clotting

Bromelain influences the coagulation pathway and helps to keep blood flowing by increasing serum fibrinolytic activity and inhibiting the formation of fibrin threads.

Anti-Microbial

Due to its anti-microbial nature, bromelain has been shown to improve skin conditions such as acne by targeting bacteria (*S. aureus* and *P. acnes*)

Wound Healing

Bromelain aids in wound healing. Its anti-inflammatory action aids in reduction of pain and swelling. Further, its exfoliation properties allows the shedding of dead cells to make way for new cells, making it helpful for wound care.

