



Knowledge-driven Solutions for Dairy & Food Industries

Food Analysis Explained

Texture Analysis

Texture Profile Analysis – short TPA – is a less costly alternative to a sensory analysis.

At OzScientific, we apply TPA in our product development projects when you need to benchmark your product

- Substituting an ingredient in a product and make sure the product has the same mouthfeel as before.
- Changes in the manufacturing process may also require that you benchmark your product before and after
- New products where you want to achieve a particular mouthfeel and sensory analysis is too costly for every iteration of concept products.
- Comparison with competitor products

We have helped a Victorian food manufacturer to use TPA in a product development project. After successful completion of the project, the company decided to buy a texture analyser and implement TPA as a quality assurance measurement for their products. OzScientific helped to commission the instrument and train staff.



How we work

- Commercial
- Confidential
- Agreed project scope
- Client oriented
- Understand timelines

Our facilities

- Pilot plant for small scale concept products
- Product development lab
- Food analysis lab
- Meeting room
- Cold rooms and incubators

Our clients

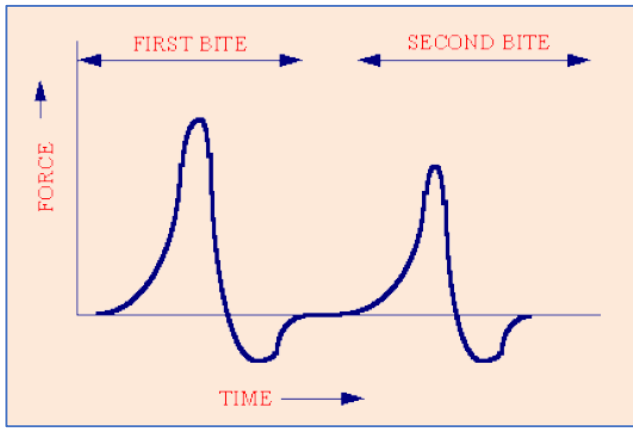
- Dairy companies
- Artisan food manufacturers and start ups
- Beverage companies with novel product or technology ideas
- Nutraceutical manufacturers
- Manufacturers of baked goods and breads
- Processors of proteins from dairy and plants

Contact Us

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What does a texture analyser measure?

The instrument is programmed to perform a single or double compression to simulate how a solid or semi-solid food behaves in the mouth during mastication and chewing.

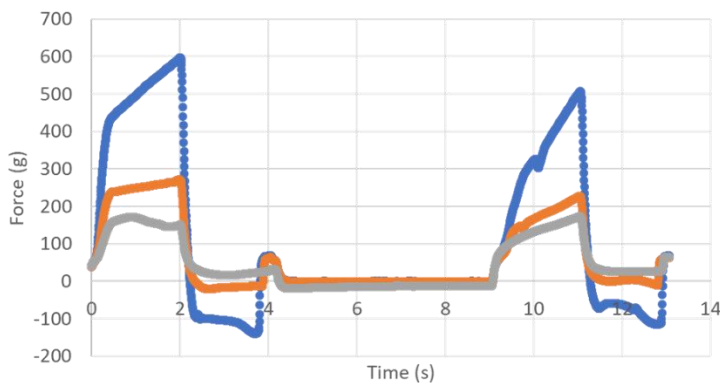
Another test that can be performed with the texture analyser is called SNAP test to measure the force required to snap brittle and crunchy foods. Finally, the instrument also measures a back extrusion force which can be applied to gels and semi-solid foods.

Source:

http://128.121.92.221/texture_profile_analysis.html

Together these measurements describe the **Texture Profile** of the food in terms of **HARDNESS, FRACTURABILITY, COHESIVENESS, SPRINGINESS, CHEWINESS, GUMMINESS** and **RESILIENCE**.

Application Note: TPA of Processed Cheese



Using mature or young cheese for the manufacture of processed cheese will give you products with different textures and melting characteristics. The TPA analysis and the “stretch test” objectively measure the differences.



- Young:Mature (80:20)
- Young:Mature (70:30)
- Young:Mature (60:40)

