

Production: CHEESE SPREAD TRIANGLES

Objective: Comparison of the firmness and stickiness of two brands of cheese spread triangles

Type of action: Penetration test

Test mode settings:

Speed	Test mode	Trigger	Target	Hold
2 mm/s	Distance (c)	2.5 gf	5 mm	0 sec

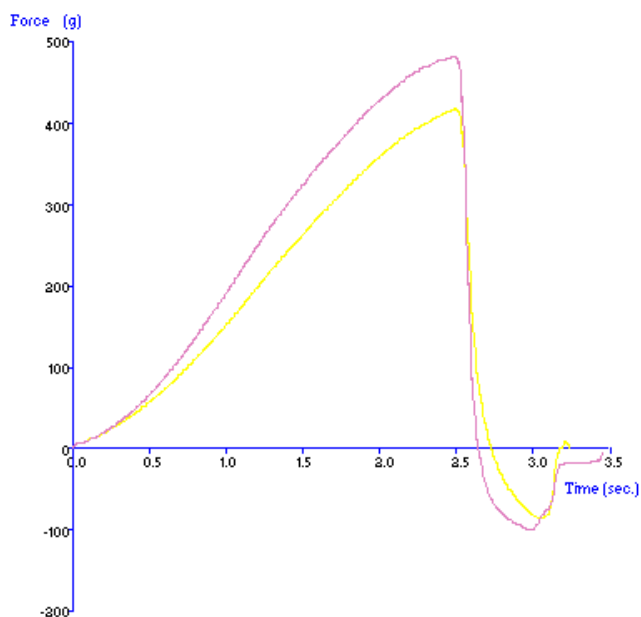
Accessory:

φ1 inch spherical probe stainless, Platform

Test Set-Up:

Remove the sample from place of storage just prior to testing. Position the sample centrally under the spherical probe and the test was commenced.

Typical plots:



The above curve was produced from testing two different brands of cheese spread triangles at 5C.

Observations:

When a 2.5g surface trigger was attained the probe proceeded to penetrate to a depth of 5mm. At this point, the probe returned to its original position at constant speed (e.g. 10.0mm/s). The negative region of the graph, produced on probe return, is an indication of the adhesive property of the fat-based spread and/or as a result of a certain weight of sample, which had adhered to the probe on return. One can see clearly that brand A is firmer than brand B.

Data Analysis:

☒ Max Force

Results

Sample	Mean Max. +ve Force 'Firmness' (+/- S.D.) (g)	Mean Max. -ve Force 'Stickiness' (+/- S.D.) (g)
A	494.1 +/- 26.0	-96.9 +/- 20.7
B	418.3 +/- 2.7	-80.7 +/- 9.5

Notes:

- Due to the fact that the samples have a high fat content, the temperature will no doubt have an effect on the textural properties. The chosen test temperature e.g. 5C should be kept constant for comparison purposes.
- As these products are temperature sensitive, it is important that the temperature is carefully controlled so that test data can be compared.
- When attempting to optimize test settings it is suggested that the first tests are performed on the hardest samples to anticipate the maximum testing range required and ensure that the force capacity allows testing of all future samples.