

## Texture Evaluation of Chewing Gum

### APPLICATION

Large food processor was looking for a way to control the texture of two similar products with different recipes. Current methods involved simple sensory testing.

### PROBLEM

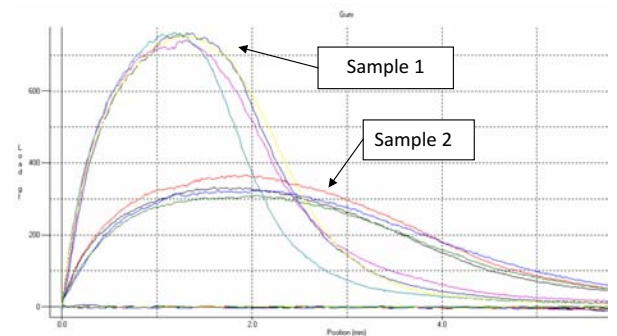
The two products were essentially the same, the difference being the flavor. The problem was that even though the process was the same, the final texture of each was different. The different flavoring ingredient was thought to be the cause. Because they did not have an objective way to measure the differences, there was no way to confirm this.

### SOLUTION

It was determined that using the 3 point bend for testing was going to give the best results. This basically replicates the treatment of the consumer when they put the gum in their mouth. Each sample was deformed to the same displacement. At the end of each replication, calculations of the peak force and work (area under the curve) were done. From these two measurements and the overall picture that the graph gave, we were able to show a significant difference in the two variants of the same product.

### BENEFITS

- Allows processor to put objective numbers to their sensory data
- Software facilitates automatic statistical analysis and objective measurements
- Graphing function lets the user visually see where the two products are different
- Simple and quick test



Sample 1	Peak	Area	Sample 2	Peak	Area
	Gf	Gf.mm		Gf	Gf.mm
1	365	1351	5	741	1648
2	334	1207	6	761	1639
3	326	1270	7	763	1423
4	311	1170	8	758	1665
AVG	334	1249.5	AVG	756	1594
STDEV	22.8	79.3	STDEV	10.0	114.3