

Milk Chocolate and Toffee

Factors Affecting Creaminess

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Creaminess is a sensory attribute that is of great importance in the consumer enjoyment of many foods. The term *creaminess* is a descriptor that is often used when describing the sensory properties of food products, especially those containing fat. It is an important indicator of richness and high quality.

The most appropriate terminology and sensory attributes to describe the textural contributions of fat in food products are far from resolved despite a range of research investigations in this area. Various investigators have attempted to relate sensory creaminess to more definable attributes such as thickness, smoothness, slipperiness and softness. The success of these approaches has been reviewed extensively in Kokini and more recently by Kilcast and Clegg.

Researchers have recognized the importance of two rheological parameters—viscosity and flow behavior index—in relation to fat perception, and such studies have illustrated the product dependency of perceived creaminess in terms of viscosity measurements for products with viscous characteristics.

Although much work has been carried out on viscous emulsion-type products that might be conventionally considered creamy, other products such as chocolate and toffee are also often referred to as possessing a creamy attribute. However, the underlying

basis for the perceived creaminess in such solid products is not well understood.

Leatherhead has been working for a number of years on understanding creaminess as a product attribute. The most recent work has concentrated on the perception of creaminess in chocolate and toffee. The main findings of the study are reported here.

UNDERSTANDING THE MEANING OF CREAMINESS

The initial stage of work was aimed at exploring the concept of creaminess in food products using focus group discussions in which products with creamy characteristics were discussed in general.

In order to gain a greater understanding of the perception of creaminess in solid systems, focus group discussions were then carried out in which the panelists considered the product categories chosen (chocolate and toffee).

Milk Chocolate

A wide range of commercially available products were selected and discussed in terms of their creamy characteristics by the sensory panel.

In these discussions, overall creaminess was considered to be a combination of texture and flavor. In the sensory profiling experiments discussed later, no definition was given to the attribute of overall creaminess and panelists were instructed to score

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