METHOD TO ESTIMATE RECONSTITUTION OF FOOD POWDER IN LIQUID

Context

The dissolution ability of a dry powder in a liquid depends on many parameters, including wettability, sinkability, dissolution, or dispersibility. These parameters affect the customer perception of the overall product quality.

A large range of food powders exists, such as nutritional powder, dehydrated milk, baby milk, chocolate milk, beverages…

In this application note, we propose a methodology to assess the dry powder quality for reconstitution in liquid.

Method

The efficiency of 3 different food powders is assessed with a quick and simple protocol: a glass cell is filled with 15 mL of distilled water and 2g of powder is deposited on the water. No stirring is applied to the product.

Food powder 1	**Horlicks (GSK)**
Food powder 2	**Milo (Nestlé)**
Food powder 3	**Bourn Vita (Cadbury)**

TURBISCAN measurement starts just after the powder layer is deposited. The measurement is performed at 25°C. The following graph displays a typical TURBISCAN profile obtained.

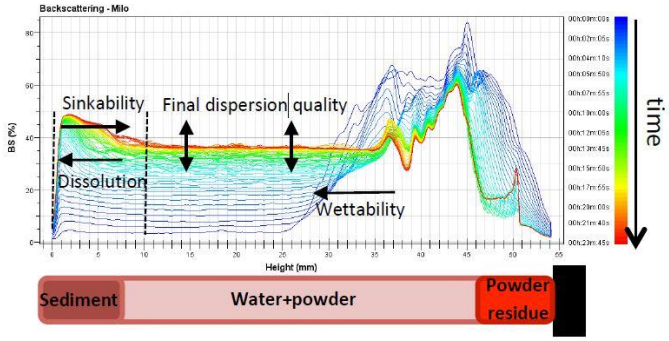

***Fig.1**: Evolution of the transmission signal for food powder 2 and schematic of the glass cell after 30 minutes*

This graph shows information regarding the **wettability** of the powder, the **sinkability**, the **dissolution power**, and the final **dispersion quality**.