

TasteTech

Developing innovative flavour technology

Challenge

Social and demographic changes and the evolving new patterns in consumer's preferences, are forcing the flavour industry to take innovative approaches to new flavour systems and their methods of processing. TasteTech's technology is based upon food flavour encapsulation, which can be applied in other markets such as pharmaceutical excipients. Encapsulation turns liquids and other ingredients into dust free powders that are simple to process, easy to dose and cost-effective to use. TasteTech use cutting edge technology including Core Shell and Matrix encapsulation.

Solution

Core shell encapsulation provides a barrier between two or more incompatible substances, so is ideal for protecting an active ingredient where humidity and moisture are present. It also allows for the controlled slow release of the active ingredient. Matrix encapsulation can also increase the longevity of ingredients and flavourings or achieve taste masking. It enables you to control the release of the active ingredient by heat, and can achieve freeze or thaw stability of sensitive ingredients.

HTH Contribution

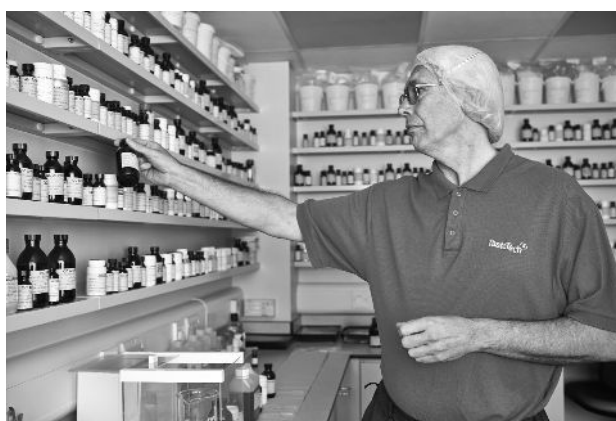
The Health Tech Hub team helped to investigate the distribution of sweetener particles within wax particles. Techniques used included optical microscopy and imaging Raman confocal microscopy. This produced information on the 3D distribution of the sweetener particles within the larger wax articles, revealing that there is a good level of uniformity even though they've been mass produced. It's given TasteTech a greater insight into the encapsulated particles they produce, helping to prove that the active material (a sweetener in this example) is encapsulated within the microspheres.

"The Health Tech Hub researchers & technicians have all been engaging, enthusiastic and keen to explain what their kit does and find ways in which it can be applied to get meaningful useful results. Engaging with the HTH is also another avenue to discuss ideas, potential markets and get another perspective. Working with the team broadens our horizons on what other materials, nutrients or actives could make new beneficial products utilising this encapsulation technique.

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