Topic: OVER VIEW OF MICROENCAPSULATION TECHNIQUES

Ref: REF: TT/ MAY 2014/ WK 2

Content:

What is Microencapsulation Technique?

Micro-encapsulation is a process in which tiny particles or droplets are surrounded by a coating to give small capsules of many useful properties.

Microencapsulation is a technique to enclose solids,liquids,gases into a micrometric wall around them made up of hard or soft soluble film, a microcapsule is a small sphere with a uniform wall around it of Size 3-8 Micrometer.

The material inside the microcapsule is referred to as the core, internal phase, or fill, whereas the wall is sometimes called a shell, coating, or membrane.

The microcapsule even may have multiple walls.

Reason for Choosing Microencapsulation Techniques:

1. To protect reactive substances from the environment.

2. To convert liquid active components into a dry solid system.

3. To separate incompatible components for functional reasons.

4. To control release of the active components for delayed (timed) release or long-acting (sustained) release.

Methods Of Microencapsultion:

1.Physical Method(Eg:Spray Drying,Pan coating etc..)

2.Chemical Method(Eg:Phase Separtion,Solvent extraction etc..)

Application of Microencapsulation Technology on Textiles:

Microencapsulation offers a great opportunity for the improvement of the products of the textile industries by the application of the additional compounds such as

- Durable Fragrance
- Insect repellents
- Antimicrobials
- Phase Changing materials
- UV Rays Protection Chemicals

Methods Followed to Apply Microcapsules on Textiles:

- Padding method
- Coating method
- Spray method
- Immersion Method

Advantages of Microencapsulation on Textiles:

The application of Microencapsulation techniques offers the possibilities of producing

- Noval Textiles with many advantages than traditional products.
- It introduce new qualities of garment & fabrics such as control release of active compound etc…

"Happy Week ahead"

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