

SILICONES IN TEXTILES – PART II

REF: TT/ JULY 2018 / WK 2

Silicones as Process Aids

- A) **As Antifoams** - Silicones are widely used in the textile industries as antifoams. These antifoams are capable of operating in a wide range of temperature and pH conditions. They produce highly efficient antifoams for many different applications and in various foaming media.

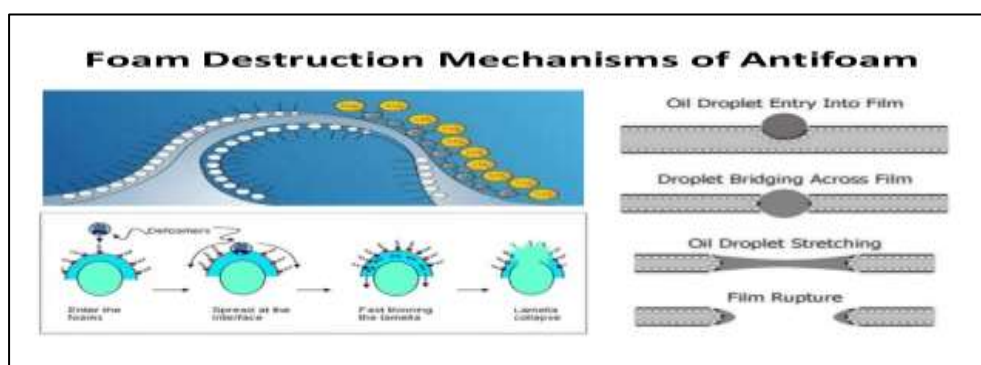


Fig 1.1: Antifoams Mechanism

- B) **As Wetting agents** - Silicone polyethers are used to facilitate the wetting of difficult substrates that contain high levels of organic fats in their structures.

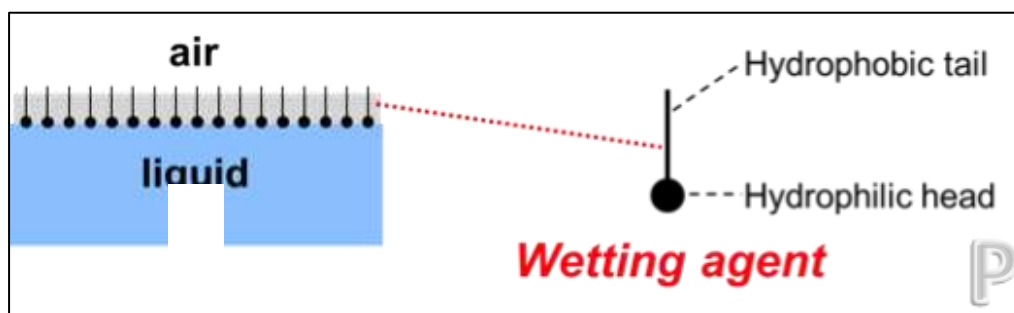


Fig 1.2: Wetting Agent Mechanism

C) **As Needle lubricants** – To avoid needle overheating during sewing.

Silicones in Fabric Coatings

Silicones are used as coatings from fashion wear to airbags. These applications are based on cross-linked silicone polymers or elastomers, which can be formulated into crystal-clear coatings that can be either soft and flexible or hard and rigid.

Silicones as Hydrophobic Agents

Silicones provide highly hydrophobic finishes on various fabrics. The silicone phase of such emulsions contains SiH-functional polymers because of their reactivity towards the fabric, but also because these polymers can cross-link with each other into a hydrophobic and durable fabric treatment.

To be continued...

Wishing you a great week ahead!

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