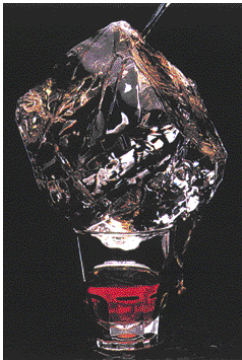




schoeller®-PCM™ actively balances out temperature extremes

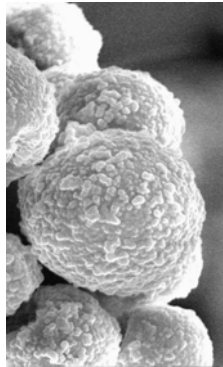


## The principle:



The name Phase Change Materials is a collective term for materials which are capable of changing their state of matter within a certain temperature range: from

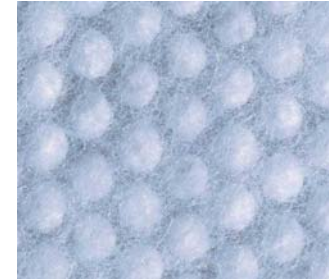
solid to liquid and from liquid to solid (this is known as "phase change"). The simplest example is water, which turns into ice at 0 °C and into steam at 100 °C.



In order to physically incorporate Phase Change Materials in textiles, they are enclosed in a protective wrapping (a microcapsule with a diameter of just a few microns). This is to prevent leakage during the liquid phase and to

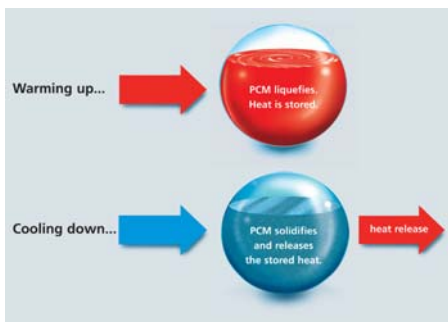
ensure that the garment can stand the effects of washing, cleaning and the weather.

Ideal bearer materials for these microcapsules, which enclose the Phase Change Material, are fibres,



coatings and foam, which can be added to different materials such as fleece, tricots or fabrics.

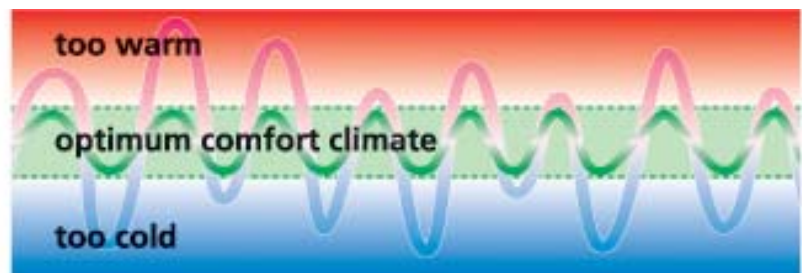
## The effect:



A product of schoeller-PCM™ contains Phase Change Materials, enclosed into innumerable tiny microcapsules which react to temperature fluctuations. At a certain temperature, their aggregate condition changes: from liquid to solid and vice-versa. The Phase Change Material in the microcapsules has been set to a particular temperature range. If the body temperature or the outside temperature rises, the excess warmth is stored. When the temperature drops, the previously-stored warmth is released again. In other words: schoeller®-PCM™ actively balances out temperature extremes.

## The result:

products with schoeller®-PCM™ always ensure the very own comfort climate. Even with extreme fluctuations in temperature, the wearer never feel too cold or too warm, and the performance level is maintained.



- **Aerospace Technology:** Phase Change Materials were developed for NASA.
- **Dynamic Climate Control:** schoeller®-PCM™ actively balances out temperature extremes.
- schoeller®-PCM™ creates a personal comfort climate. Performance is retained even under the most extreme conditions.
- In addition to a temperature-regulating function, schoeller®-PCM™ offers the following properties: High breathability and moisture-regulation.