

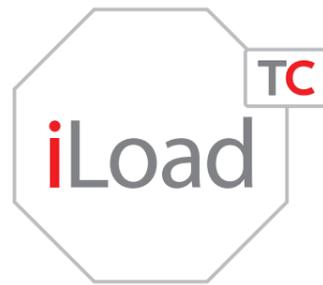
iLoad

TC

Actively compensates
extremely high or low
temperatures



Active compensation of extremely high or low temperatures

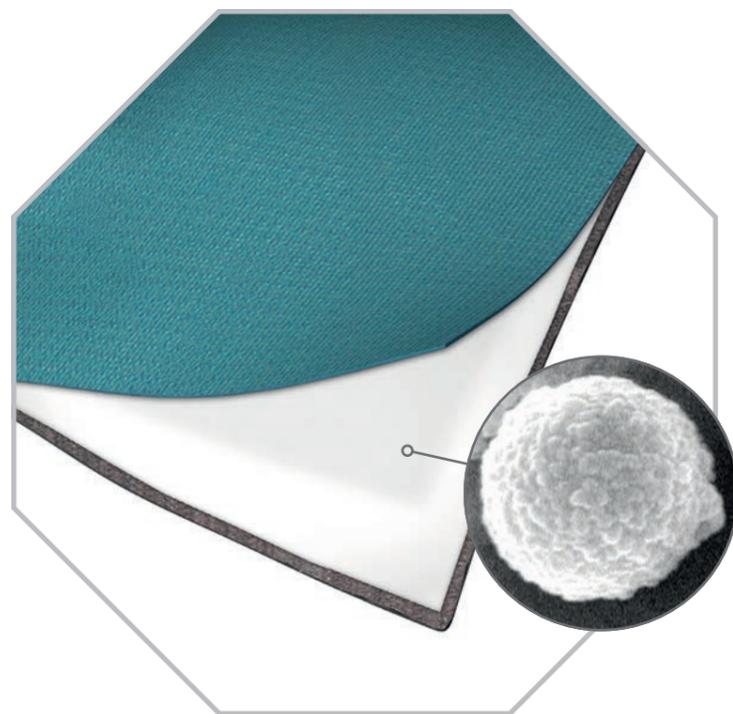


The temperature-regulating iLoad supplements the passive insulation provided by clothing with an active system. It reacts directly to changes in ambient and body temperature and adapts to the current thermal situation, balancing out temperature fluctuations. This creates a lasting climate of comfort close to the body and has a positive effect on performance.

Technology

iLoad is based on phase change materials that were part of a NASA research program in the 1980s, with the aim of better protecting instruments and astronauts from extreme temperature fluctuations in outer space.

The term "phase change materials" is a collective term for materials that have the ability to change their state of aggregation within a certain temperature range, from solid to liquid or from liquid to solid (phase change), thereby storing or releasing energy/heat. In order to integrate phase change materials into textiles, they are enclosed in a protective shell or microcapsule measuring just a few micrometers in diameter. This prevents leakage during the liquid phase and ensures that the garment remains washable, cleanable, and weather-resistant. Suitable carrier materials for these microcapsules are fibers, coatings, and foam.



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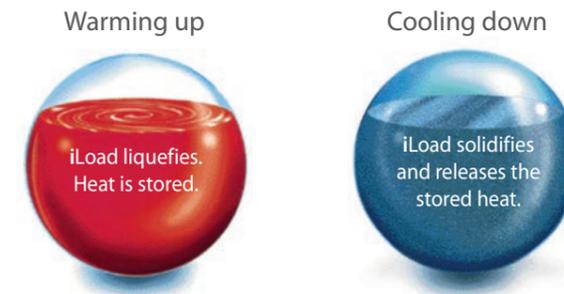
Phase Change Materials

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 (phase change). The simplest example is water, which turns into ice at 0 °C and into steam at 100 °C.

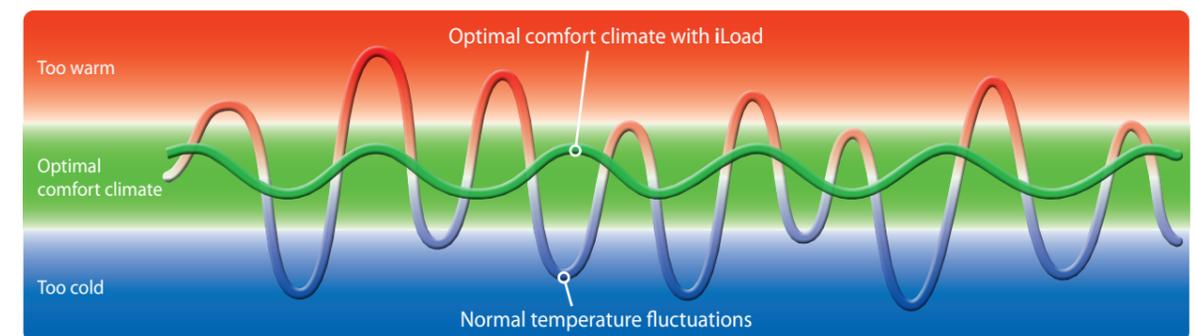
Comfort

Products with iLoad always ensure a personalized comfort climate, as temperature fluctuations are actively and comfortably compensated for.

Active insulation is the most important aspect of iLoad. It adds to the passive insulation provided by clothing by storing excess heat generated by physical activity or warmer surrounding temperatures. When the temperature drops due to a period of rest or colder surrounding temperatures, the microcapsules release the heat they have stored. Even with extreme temperature fluctuations, you will never feel too cold or too warm – performance and comfort are maintained.



Temperature fluctuations are actively compensated for



The iLoad microcapsules are linked to an individual temperature range at which a phase change is programmed. To 36 °C for motorcycle helmets, to 28°C for gloves. For precise phase change (e. g., at 28 °C), only microcapsules with the corresponding value are used. Let's take a precise comfort climate of 28 °C as an example. The microcapsules react to any temperature change above or below 28 °C by absorbing or releasing heat. They balance out the different temperatures.



TEMPERATURE REGULATION



BREATHABLE



WASHPROOF



ECOLOGICAL



Weitere Hinweise zur sicheren Handhabung entnehmen Sie bitte dem Sicherheitsdatenblatt!

Die hier wiedergegebenen Empfehlungen und Angaben in Wort und Schrift über unsere Produkte beruhen auf umfangreichen Forschungsarbeiten und entsprechen unseren heutigen Erfahrungen aus der Textilveredlungspraxis. Sie gelten als unverbindliche Hinweise – auch in Bezug auf Schutzrechte Dritter und ausländischen Rechtsvorschriften – und befreien den Anwender nicht davon, Produkt und Verfahren auf Eignung für seine Einsätze selbst zu prüfen. Insbesondere übernehmen wir keine Haftung für die von uns nicht ausdrücklich in schriftlicher Form genannten Einsatzzwecke. Technische Änderungen im Zuge der Produktneuentwicklung behalten wir uns vor. Im Falle eines Schadens verweisen wir hier auf unsere Allgemeinen Verkaufs- und Lieferbedingungen Ziffer 7.