



 **Tearfil**  
Textile Yarns



... not too hot    ... not too cold    ... just right™

### How it works:

The **Outlast®** technology was originally developed for **NASA** to protect astronauts against the extreme temperature changes in space.

**Outlast®** technology utilizes microencapsulated phase change materials (mPCM) that proactively absorbs heat, stores it and releases it for optimal thermal comfort. This gives any product containing Outlast® technology the ability to continually regulate the **skin's microclimate**. As the skin gets hot, the heat is absorbed, and as it cools, that heat is released.

The technology was further developed over the years so that it could be used for the consumer market covering every day's needs.

The microcapsules containing the phase change material are integrated inside the textile fibre which are used to make the garments. Fabrics made out of this fibre do not compromise the weight or the softness compared to other fabrics.



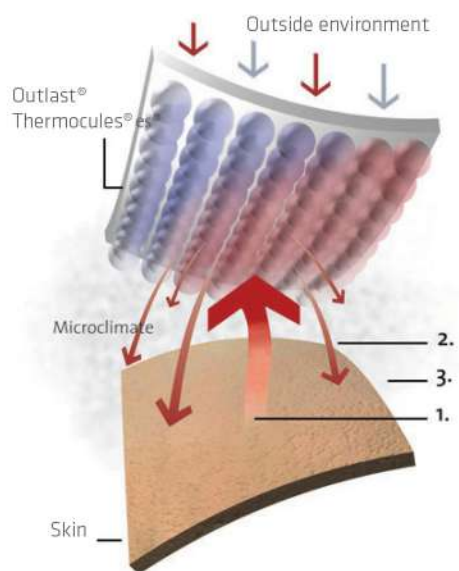
## Advantages of Outlast®:

Outlast® technology will proactively manage heat while controlling the production of moisture before it begins. That's the Outlast® difference. Outlast® creates a dynamic system which gives the optimum all day comfort to the body.

The **benefits of Outlast®** products at a glance:

- Absorbs excess body heat
- Manages moisture
- Reduces overheating
- Reduces chilling
- Reduces perspiration
- Continuously adapts to thermal changes

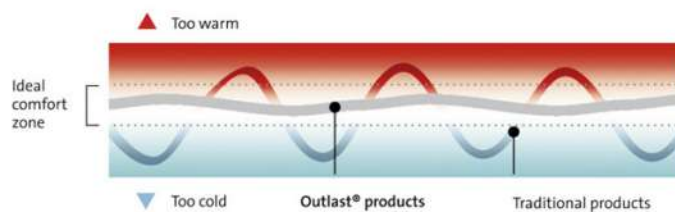
## How Outlast® Adaptive Comfort® works



1. Outlast® Thermocules® absorb the excess heat.

2. Stored heat is released to the body as needed.

3. The result is a constant microclimate.



## Application:

- Bedding
- Apparel
- Underwear
- Footwear / socks / insoles
- Military and protective products
- Seating
- Many others

## Available blends:

- 30% OUTLAST® VC / 70% Long Staple SUPIMA Cotton  
Thermal, natural hand feel
- 30% OUTLAST® VC / 70% Tencel® LF  
Thermal, silky hand feel
- 30% OUTLAST® VC / 20% Micro-PES / 50% Trevira® Bioactive PES [SIRO SPUN]  
Thermal, Moisture management, bacterial-static, low pilling
- 30% OUTLAST® VC / 55% Long Staple Cotton / 15% Merino® Wool  
Thermal, woollen hand feel
- 40% OUTLAST® VC / 60% Long Staple SUPIMA Cotton  
Thermal, natural hand feel
- 40% OUTLAST® VC / 60% Tencel® LF  
Thermal, silky hand feel



## Contact:

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