



Silcare Breathe Liners

Breathable technology for
drier skin and socket security

Blatchford



Innovation at Work: A new direction in silicone liner technology

Optimal control of a prosthetic limb depends on a comfortable and secure connection between limb and socket. Modern liner technology provides excellent cushioning, but the impermeable and insulating materials can allow a build-up of heat and moisture so they begin to slip and chafe. Air, perspiration and unnecessary movement can cause a loss of connection, compromised stability and damage to residual skin, potentially affecting mobility, safety and independence.

The patented technology of Silcare Breathe works by letting the air and perspiration that are often trapped between the liner and skin to escape through specially designed laser drilled perforations. The air and moisture are then expelled from the socket as the wearer walks, resulting in drier skin and a healthier environment for the residual limb. This helps to increase comfort and control, and reduce the damaging effects of relative motion on damp tissues that is often encountered with standard prosthetic liners.



Breathable Technology

The body cools by moving blood flow closer to the surface of the skin, and when this is not sufficient the body produces sweat to increase cooling by evaporation.

The need to regulate body temperature is greater for amputees, and a lack of temperature regulation can have severe negative effects.

Expend **more energy to walk than non-amputees** (Trans-tibial 20-40% more)¹

Ability to cool is compromised due to **reduced body surface area**

Sockets/Liners can act as **insulators**

Elevated skin temperatures can affect amputees' **perception of comfort** and may be related to incidence of **residual-limb skin injuries**.²

Heat build-up and increase in skin temperature increase the potential for **skin problems**.³

Heat and perspiration inside prosthetic socket most common cause for **reduced quality of life**.³

The Silcare Breathe range has been designed to tackle these issues. Laser drilled perforations transmit moisture away from the skin to ensure a comfortable, cool and secure fit for the user.

- ✓ **Reduced relative movement between stump & liner**
- ✓ **Enhanced proprioception**
- ✓ **Enhanced comfort**
- ✓ **Drier, cooler, healthier skin**

¹ Seymour, R. Prosthetics and Orthotics: *Lower Limb and Spinal*. Philadelphia: Lippincott, Williams and Wilkins 2002,

² Hagberg K, Brånemark R. Consequences of non-vascular trans-femoral amputation: a survey of quality of life, prosthetic use and problems. *Prosthetics and Orthotics International*. 2001; 25(3):186-94.

³ Peery JT, Ledoux WR, Klute GK. Residual-limb skin temperature in transtibial sockets. *Journal of Rehabilitation Research & Development*. 2005; 42(2):147-54.



Silcare Breathe Cushion Liner

Stretch Zones

Seamless knitting technology provides bi-directional stretch to improve comfort and contouring and reduce shear force on the knee as it flexes.

Tendresse™ Finish

Provides a lower coefficient of friction than standard silicone, reducing shear stresses on the skin.

Laser Perforations

Optimally sized pores distributed uniformly along the length and distal end of the liner permit the escape of moisture. Use with a one-way valve on the socket helps to generate a better vacuum and more secure fit.



Silcare Breathe Locking Liner

Pinlock Locking System

Locking system and unique one way valve create an airtight seal between the skin and the inner surface of the liner. No separate suspension sleeve is required with Silcare Breathe Pinlock liner contributing to a cooler environment for skin and a more comfortable limb and socket connection.

Stretch Zones

Uni-directional stretch at the distal end resists pistoning whilst bi-directional stretch at the proximal end allows for comfortable knee flexion.

Tendresse™ Finish

A lower coefficient of friction than standard silicone reduces shear stress on the skin.

Laser Perforations

Optimally sized pores distributed uniformly along the length and distal end of the liner permit the escape of moisture.





“I can take the leg off after a strenuous day and it's touch dry, it's changed my leg experience tremendously.”

Dean

“I used to get a lot of sweating at the stump, now I don't get any and the callouses I used to suffer with have disappeared.”

David

“I am able to run five miles every day and have no issues with blisters like I had before.”

Mick

Specification

Activity Level: 3-4
Amputation level: Trans-tibial
Sizes Available: 22, 23.5, 25, 26.5, 28, 30, 32, 34, 36, 40

Order Example

Silcare Breathe Locking SBTTLPXXL
Silcare Breathe Cushion SBTTCPXXL

Silcare Breathe	Trans-Tibial	Cushion Parallel/ Locking Parallel	Size	Light Colour
SB	TT	CP/LP	XX	L

Note: 23.5 = 23, 26.5 = 26



UK Patent Application No. 1616241.4. Patented European 2254526 and 2653138.
Patented US 8308815 and 8668744.



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The Blatchford logo features the company name in a white, sans-serif font. To the right of the name is a graphic element consisting of five small, vertically aligned circles in the colors of the rainbow (red, orange, yellow, green, blue).