**DURATEC® – A FAMILY OF CAREFULLY SELECTED FUNCTIONAL FABRICS**

8848 Altitude has in close cooperation with some of the world’s leading fabric manufacturers, developed an own system of high performance materials: durAtec®. The materials have been developed to meet a variety of needs where different benefits are prioritized – from comfortable softshells to superlight 3-layer constructions.

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**DURATEC® SOFTSHELL**

- durAtec® softshell is a membrane, laminated on the reverse of a shell fabric. It is waterproof, with a water column of >8 metres (withstands pressure of at least 8 metres in a cylindrical measuring instrument).
- durAtec® softshell is windproof.
- durAtec® softshell features a stretchable material for added comfort.
- durAtec® softshell "breathes" 5-6,000 g/m²/24 h (i.e. is permeable to water vapor from inside).
- durAtec® softshell garments have no taped seams (this means the ready-to-wear garment is water-repellent only).

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**DURATEC® COMFORT**

- durAtec® comfort is a coating on the reverse of a shell fabric. It is waterproof, with a water column of >5 metres (withstands pressure of at least 5 m in a cylindrical measuring instrument).
- durAtec® comfort is windproof.
- durAtec® comfort "breathes" (i.e. is permeable to water vapor from inside).
- durAtec® comfort garments have no taped seams (this means the ready-to-wear garment is water-repellent only).

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**DURATEC® EXTREME**

- durAtec® extreme is a coating on the reverse of a shell fabric. It is waterproof, with a water column of >10 metres (withstands pressure of at least 10 metres in a cylindrical measuring instrument).
- durAtec® extreme is windproof.
- durAtec® extreme "breathes" 6-8,000 g/m²/24 h (i.e. is permeable to water vapor from inside).
- durAtec® extreme garments are seam sealed, which makes the garments fully waterproof.

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**DURATEC® SUPREME**

- durAtec® supreme is a laminated material on the reverse of a shell fabric. It is waterproof, with a water column of >20 metres (withstands pressure of at least 20 metres in a cylindrical measuring instrument).
- durAtec® supreme "breathes" 15-20,000 g/m²/24 h (i.e. is permeable to water vapor from inside).
- durAtec® supreme is windproof.
- durAtec® supreme garments are seam sealed, which makes the garments fully waterproof.
- durAtec® supreme stretch provides extraordinary freedom of movement and comfort.
Waterproof technology has remained about the same since the very first hard shell. Breathability is achieved through diffusion: moisture and heat create enough pressure that moisture vapor finally passes through the fabric. Soft shells trade waterproof-ness for greater breathability by making use of convection: a constant exchange of air allows more moisture vapor to escape. Now, Polartec® NeoShell® delivers the best of both worlds.

**THE MOST BREATHABLE WATERPROOF FABRIC EVER.**

Waterproof technology has remained about the same since the very first hard shell. Breathability is achieved through diffusion: moisture and heat create enough pressure that moisture vapor finally passes through the fabric. Soft shells trade waterproof-ness for greater breathability by making use of convection: a constant exchange of air allows more moisture vapor to escape. Now, Polartec® NeoShell® delivers the best of both worlds.

**TECHNOLOGY** PROTECTS LIKE A HARD SHELL, BREATHE LIKE A SOFT SHELL

Almost all other waterproof fabrics use continuous film membrane technology and therefore rely on diffusion to move water vapor molecules. Moisture and heat have to generate enough pressure inside your jacket so the moisture vapor can finally pass through the fabric.

**MEMBRANE** A WATERPROOF FABRIC WITH UNPRECEDENTED BREATHABILITY

With its exclusive membrane technology, Polartec® NeoShell® engages convection to move moisture vapor away rapidly. Even at extremely low levels of pressure, air flows in and out of the fabric. This pulls the moisture out to help keep you drier during high-exertion activities.
**AIRFLOW**  MORE AIRFLOW, BETTER BREATHABILITY

Most hard shell fabrics allow zero airflow. Even when compared to the best waterproof/breathable fabrics, Polartec® NeoShell® has over 2X the airflow. This controlled exchange of air allows the process of convection to increase the transfer of moisture vapor. You won’t notice any wind chill. But you will feel drier.

**WATER RESISTANCE**  THE STANDARD FOR WATERPROOF

For a fabric to be considered waterproof, it must withstand the industry's requirement in hydrostatic head tests of 10,000 mm of water pressure. Anything beyond this point is unnecessary as it won’t keep you any drier. You’re dry at 10,000 mm. You won’t stay drier with a higher number. But you’ll likely be wetter from sweat.

**DYNAMIC BREATHABILITY**  DYNAMIC TESTING FOR A DYNAMIC WORLD

The airflow in conventional waterproof/breathables is close to zero whether you’re active or not. Breathability claims for these fabrics are typically based on static testing conditions. So the second you walk outside, the claims are irrelevant. A more accurate measure of breathability is found with Dynamic Breathability Testing which accounts for real world conditions like wind and movement.
MATERIAL INFO

PRIMALOFT® FLEECE
Polartec® Classic fabrics are the reference standard for lightweight warmth and breathability. It is the original fleece offering unparalleled quality and durability. Polartec® Classic fabrics have been primary insulation layer of choice among outdoor enthusiasts for nearly three decades. These fabrics are available in a range of weights to provide the right level of insulation for most outdoor activities. Polartec® Classic Micro® fabrics are the lightest and are excellent for a warm first layer or lightweight sweater. Polartec® Thermal Pro® fabric provides outstanding warmth and versatility for wintertime sports.

The proprietary ultra-fine fibers of Primaloft insulation form a tight collection of air pockets that trap heat from your body and keep the cold out providing an excellent warmth to weight ratio that keeps you warmer.

Polartec® Power Stretch® fabrics feature body-hugging 4-way stretch and are very breathable. They keep you dry when you sweat and provide warmth without weight.

– The fabric is highly breathable and does not restrict the movement of moisture vapor.
– "Touch points" on the fabric inner surface draw off the sweat. Sweat is wicked off the skin to the outside of the fabric, where it spreads rapidly for evaporation.
– When the sweat reaches the outside of the fabric, it spreads out to many times its original surface area, enabling it to dry at least 2 times faster than cotton.

PRIMALOFT® ECO
The PrimaLoft® brand is the leader in fiber research and development for high performance insulations and yarns. PrimaLoft insulation products offer superior performance for high quality cold-weather gear. PrimaLoft is incredibly soft, lightweight and breathable with excellent water repellency so you remain dry, warm and comfortable – even under the most extreme conditions. The patented PrimaLoft ultra-fine microfibers are specially treated in a proprietary process, creating a core with incredible insulation properties.

– The proprietary ultra-fine fibers of PrimaLoft insulation form a tight collection of air pockets that trap heat from your body and keep the cold out providing an excellent warmth to weight ratio that keeps you warmer.
– Fiber diameter directly influences softness. If you compare canvas fabric to silk fabric, the finer silk fibers result in a softer material. PrimaLoft fibers have been engineered to be ultra-fine and mimic the softness of goose down.
– When insulation gets wet it loses the air pockets and insulating properties. PrimaLoft ultra-fine fibers were developed to be water resistant to stay drier and maintain insulating properties. The fine fibers create a tight surface tension that won’t allow water to pass through the insulation. Specially developed fiber finishes repel water and keep the insulation drier even if water is forced into the insulation.
– PrimaLoft insulation is made with ultra-fine fibers that make it more compressible.
– PrimaLoft ECO is earth-friendly insulation created for performance and comfort. PrimaLoft Eco insulation technology combines 50% recycled material with PrimaLoft virgin fibers.

DUCK DOWN
8848 Altitude only use duck down (not goose down) in the down garments. Our duck down is produced in supervised farms and is never picked from living animals. We use three different down quality blends, for different purposes:

– 100% down: Maximum fillpower, optimal for superlight, high performance down garments.
– 80% down/20% feather: Light and very efficient insulation in down garments for allround use.
– 70% down/30% feather: Comfortable and efficient insulation in e.g. zip-in jackets.

SYNTHETIC FUR
8848 Altitude use only synthetic fur ("faux fur") in high quality for all garments with fur trimmings.
TECNOWOOL® BY PONTETORTO® SPORTSYSTEM

Pontetorto Sportsystem has married their traditional wool fabrics and their modern knits to create this new line of fabrics with the beautiful look of wool that performs technically. Included are fabrics with a classic wool pullover look but specially constructed to increase thermal insulation. TecnoWool by Pontetorto:

- Wool blend with technical performance
- Moisture-transporting
- Thin and warming
- Good breathability

SPORTWOOL® MERINO WOOL UNDERWEAR

Sportwool with Australian Extrafine Merino Wool:

- Unique fabrics designed to keep you cool and dry
- Natural climate control for superior comfort
- Rapidly draws sweat away from the skin
- Inherent protection against post exercise chill
- Natural elasticity and shape retention
- Bacteria inhibiting and odour control
- Enhanced UV protection