We might think the world has turned upside down. The UN's World Meteorological Organization (WMO) states that the ten years, 1996-2005, with the exception of 1996, are the warmest on record, with 1998 deemed the most sweltering. As we looked at the year end in Europe, animals and plants alike were uncertain whether it was autumn or spring. Many ski slopes were too warm even to be able to use snow-making machinery.

Dirgers and witches need insulation too



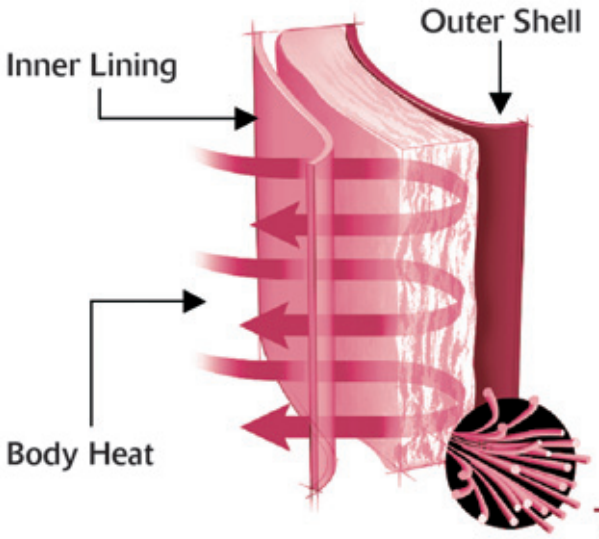
Barbour utilises a unique fabric with Thermolite Micro insulation supplied by PEG and quilted with a super fine 47gsm calendared outer and lining.

Barbour

Notwithstanding the arguments about global warming, it's a fair bet that it will be a long time before we see an end to those biting winds that drive into the East Coast of the United Kingdom, coming from Scandinavia over the North Sea, and cutting through the outerwear of residents and visitors alike. 'Dirgers and witches' (the name given to those hardy folk who complete the nearby Lyke Wake Walk over the North Yorkshire Moors within twenty-four hours) do their forty mile walk very well wrapped up.

The vagaries of the British climate are well known and appreciated by the Barbour Company, recognised worldwide for its iconic waxproofed jackets. The company is aware of the need to do more than just keep its customers dry and is eager to ensure that its clothing range matches the needs of those bearing the brunt of the worst weather as they undertake their country pursuits. When Scotsman John Barbour set up J Barbour & Sons in 1894 in South Shields, more or less from the outset it derived an important part of its income from ship owners, ship builders and seamen of the port, supplying Beacon brand oilskin coats designed to protect the growing community of sailors, fishermen, and other shipyard workers from foul weather.

So for as long as there is cold to



Thermolite fabric pulls moisture away from the skin so the skin feels dry and warm. Because it's warm and lightweight, it's also ideal for use in mid-layer garments as well as an inner layer.

AdvanSA

endure Barbour continues to evolve outwear to protect those involved in outdoor activities, including the United Kingdom's Royal Family. Over the last few years it has been busy extending its range, widening its sourcing — although much of the product remains manufactured in the UK — and adjusting the distribution structure to make the brand more relevant and accessible to the 21st century consumer.

With extensive overseas stores and success, Barbour today turns over some £57 million ($100 million) and employs around 500 staff. The company's headquarters remain in Simonside, Southshields. Although it sources products from around the globe, its famous wax jackets are still manufactured by hand in the factory in Simonside and each year over 100,000 jackets are processed via the central, subsidiary and local customer service operations. There are now over 2,000 product ranges across the two seasons and the collections now also include ladieswear and childrenswear.

Part of its offering today involves new extra warm garments, a quilt jacket and a gilet, both using Thermolite from AdvanSA, with the wadding supplied via French company PEG. Thermolite, recognised as one of the best in the class of insulation, is much favoured by PEG for leading edge uses. Among the many major brands it supplies are Apostrophe, Chanel, Claude Harvey, Comme des Garçons, Façonnable, and Hermès. The high performance hypoallergenic Thermolite insulation is specifically engineered to provide high levels of lightweight warmth, loft and softness. (These properties have also endeared themselves to the British Army which appreciates its exceptionally high warmth to weight ratio.)

"Polyester wadding is an excellent material for insulating against the cold," according to one of PEG's thermal engineers. "The volume of fibres /volume of wadding ratio is very low – mostly air – and has no noticeable influence on their thermal conductivity, which remains very close to the conductivity of air. Fine fibres and higher fibre rates (fibres very close together) reduce the thermal loss by radiation and Thermolite Micro is a perfect illustration of this. These waddings consequently have a higher thermal resistance for an identical thickness. Conversely, they give identical thermal resistance for products that are thinner and softer." A quality wadding must also have high thermal resistance but a moisture vapour permeability rate (1mt value) close to 1 as well.

It is curious that when considering the issues of global warming one of the animals we are all worried about is the polar bear, whose habitat is changing fast. Yet it is the unique hollow fibre fur that helps the polar bear insulate itself and which was copied to develop Thermolite. Many of the more fanciful suppositions about the bear's hollow fibres – especially that they directed the sun's rays like glass fibres to the skin's surface – have now been scientifically rejected, but its basic capability of providing top quality insulation remains.

Using this technological concept – another example of what we now call bio-mimicry – hollow-core fibres provide Thermolite fabrics with its built-in insulation and wicking and the technology provides the most warmth at the lightest weight. The larger surface area allows for faster evaporation by speeding moisture away from the skin to the surface of the fabric where it can evaporate more quickly.

AdvanSA's Thermolite and Barbour are happy to be able to mimic the bear — so will the dirgers and witches.