

Could a zip warrant a rethink?

After a visit to the Spring 2000 Outdoor Retailer show in Salt Lake City, Utah, the problems of warranty came to the fore as a result of a zip. Approximately two years ago a North American company introduced a new zipper system, which it claimed to be "The world's first watertight zipper".

The system differed from existing products in that it has a form of linking membrane over the interlocking teeth, which supposedly means that it can be exposed to the elements and does not need a protective covering flap. Since that launch, in a plethora of parallel development, competitive brands have produced similar products.

They were a common feature on many OR exhibits, not least those from licensees of waterproof fabric systems, but they are already the subject of controversy. The suggestion is that the zippers are fine in basic operation, i.e. the teeth lock and the garments remain closed, but that the waterproof aspect leaves something to be desired in physical use. It is supposed that this is because the garments concerned have passed static waterproof testing in a rain chamber, but have not been fully articulated as part of a dynamic test. In other words, there is considerable misgiving about the zippers performance when being flexed - a normal factor of garment wear.

The situation raises a number of questions concerning the occasional perils in conformance, convergence and consumer expectations. First, however, we should re-familiarise ourselves with the main elements of garment guarantees, starting with the 'whole garment licence' variety. In these the supplier of the waterproof, breathable membrane or fabric closely monitors the design function of a garment and its subsequent manufacturing process, removes a sample of finished product to a laboratory facility and then subjects it to a range of tests for breathability and static water resistance. By 'static' is understood a rain-chamber containing a rotating manikin subjected to jets of water from a variety of angles. By implication, since the whole garment is then guaranteed fit for purpose, any warranties given include all the component parts - including zippers - and not just the fabric. The two main protagonists of this form of guarantee are W L Gore with its Gore-Tex fabric range, and Sympatex Technologies - which uses a system of laminating partnerships to control fabric supply quality and subsequently mandates a licensing system for garment manufacture. Both, on the surface, are happy to include components in the full guarantee. Gore subsequently adds a structured dynamic test element to the package - although the prime warranty is not conditional on success. Sympatex leaves similar refinement to the manufacturer.



Zip in question?

Conformance?

Given the increasing popularity of both brand names, it is surprising to realise that the most prevalent form of warranty is still that extended by the clothing manufacturer in a direct relationship with the end-user. This is particularly evident with European manufacturers.

Here the company may purchase an available fabric (or develop its own), source all the necessary components, and incorporate the whole into a garment guarantee that relies solely on the excellence of its quality control systems. Waterproof testing will meet or exceed the requirements of ISO 811 (hydrostatic head) for the fabric. Some companies add the static element of a rain-chamber, usually as a a 'bought in' facility, but the majority prefer dynamic prototype testing as part of the development procedure. It is argued by the manufacturers that the latter ensures final quality control and warranty can include component parts. Any potential failure areas, such as 'waterproof ' zippers, will be identified before the product is placed in front of the consumer. British manufacturer Regatta operates a two-level system post development - random rain-chamber sampling at both the point of manufacture and the point of distribution. Its sister brand Craghoppers adds dynamic testing to the same mix.

Time limits under warranty vary from lifetime [sic] - such as any Sympatex or Gore-Tex licensed product and garments produced by Scottish manufacturer Vango - to two years, such as equipment from Helly Hansen, Sprayway, Regatta and Craghoppers.

Controversy

The two generic test methods - static or dynamic - have generated controversy ever since

the results have been used as marketing tools. The first argument concerns the contrast between artificial test methods and the realities of actual usage. The amount of simulated rain that is directed onto a design in the rain-chamber is way above that which is likely to be found under natural conditions. 'All to the well and good', some may say, but this 'rain' is directed in an unnatural manner - directly from above and also at a steady angle from strategically located shower nozzles. In these circumstances it is feasible that garments which work perfectly well in the real world, often fail the test. Conversely, garments that fail in the field do, in fact, frequently pass the test. The difference, it is suggested, is because the latter have been specifically designed to pass the rain-chamber test and gain type approval and not necessarily to perform under more generalised conditions. When considering this issue, it is worth remembering that the range of movements undertaken by a person actually wearing a garment in the mountains, is more diverse than the rotation of the manikin in the test chamber.

Another area of contention is that of process management costs when related to the two system-producers' lifetime guarantees. Ensuring type conformance using either Gore-Tex or Sympatex is an expensive and labour intensive business and the diversity between companies in terms of development and sourcing lead times is huge. Once type approval has been granted there are any number of circumstances in which the product can change. Cost reduction exercises; moving production to a new location; component specification adjustments; even a simple upgrade in taping equipment - can often lead to an adjustment in manufacturing methods which in turn increases the potential for random sampling failure. The discrepancies that these issues can cause have been tackled by aiming increased resources at the management of the process and, in one licencing supplier's instance, introducing new rules which insist that every production line should have a sealed and tested reference sample for instant comparison. The associated cost can only be passed in one direction, and in an increasingly competitive market where many garment brands carry the same licencor's hang tags, the benefits of an advantageous price level are magnified. In many cases in Europe this has led to garment producers developing a secondary line using 'own-brand' fabrics with very similar operating parameters to those of the higher-priced performance products.

A third controversy is developing concerning the application of the warranty to bought-in components. The potential benefit, or possible lack of it in the case of the waterproof zippers, has focused attention on the ramifications of a warranty which depends on a static test procedure to achieve type approval. Until now there has never been any question but that all the component parts carried the same warranty as the fabric. After all they were attached to each other; similarly sealed (taped); and were covered by strategic flaps and touch 'n close fastenings. However, there is evidence to suggest that some of these newly-developed components can fail under dynamic conditions in the field having previously passed the static rain-chamber test. The garments will presumably soon be on sale to the public carrying the appropriate hang-tags and full warranty - and the potential for major damage to consumer confidence is clear.

There is no doubt that the waterproof zipper development is here to stay, although not necessarily in its present form. Sympatex Technologies says that it has no plans for changing its policies in the context, but Vaude - a major user of Sympatex membrane and a joint developer of the recently launched Transactive - is fitting a version of the zip to a range of jackets. A spokesman for Vaude said that the waterproof zipper as specified by the company had yet to fail in service.

W L Gore insisted that its consumer satisfaction guarantee, which has been operational for more than 10 years, remains so for all aspects of waterproofness, windproofness and breathability of Gore-Tex outerwear as described in the guarantee booklet accompanying every garment. It must be assumed that the company has assessed possible damage to its reputation from including this new technology and presently considers the risk justifiable.

Convergence

If it can be accepted that no manufacturer of performance clothing is going to place products on to the market which will damage its reputation, then it must also be accepted that the past work of the Gore-Tex and Sympatex marketing teams has been of the most enormous benefit in focusing consumer attention on total product quality. However there is reason to believe that garment and component design and technology is moving towards a quantum leap forward which may, and possibly should, take them outside the control of any fabric manufacturer or supplier. Many textile companies are reconsidering or adopting vertical integration as the method of controlling coating and laminate technology. The results are evident in the success of 'own brand' performance fabrics which have enabled garment manufacturers to offer full product warranties in the certain knowledge that the returns rate will be minimal.

The indications are that within a decade there will be convergence in the industry with the acceptance that branded fabric warranties should be restricted to the fabric only; that 'hard' components will carry their own warranty; and that the responsibility for guaranteed performance for the whole garment will devolve on to the manufacturer. The playing fields will never be totally level, but they will at least be within sight of each other.

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