

## **SPECIAL REPORT - The Soft Shell Apparel Market Opportunity**

Soft shell, from our perspective, represents the most significant new opportunity in the sports and outdoor markets in more than a decade. Virtually anyone who currently owns a technical outerwear garment (usually a waterproof/breathable hard shell jacket) represents a potential customer over the next three to five years for a soft shell replacement garment. There are three or four key drivers behind the soft shell revolution (which will gather significant momentum in the fall/winter 2002/2003 season, but will – again from our perspective - bloom into a huge new opportunity over the next five years). Those drivers are:

- 1. The new silhouette.** Soft shell garments have a whole new look – typically slimmer, shorter, more body conscious and athletic (than the hard shell jackets they will typically replace). Waterproof/breathable hard shells have been around now for more than 20 years and it's getting tougher for designers to create a unique new hard shell look. As hard shell is getting tired, soft shell offers a refreshing alternative and it's this new "look" that ultimately will drive the market.
- 2. Comfort/versatility.** Comfort and versatility represent the soft shell mantra – the new technical story. Soft shell offers one garment that replaces the middle (or insulating) and hard shell (or outer) layers - suitable for wear in 80% to 90% of weather conditions through three seasons (fall, winter and spring). This new paradigm challenges the concept of layering. It eliminates the need to stop and peel or add a layer. Soft shell is quiet, stretchy and effective in most weather – both comfortable and versatile.
- 3. Breathability.** Soft shell's technical advantage centers on enhanced breathability. "For most outdoor enthusiasts, whose activities involve a few hours (not days) of time, the storm within (sweat from exertion) is more important than the storm without," as one key outdoor apparel supplier said. "There has been a growing demand for more breathable outerwear and soft shell addresses that demand. As with life, there are always compromises. Soft shell offers much enhanced breathability, which is needed in 80% to 90% of the conditions most enthusiasts will encounter. In really foul weather, the reality is that most outdoor enthusiasts simply exit their activity. Core enthusiasts, however, have the option of wearing a new-generation, extremely lightweight and packable waterproof/breathable shell over the soft shell (creating the same weather protection as hard shells).

Here in Canada alone, our trade has sold more than \$2 billion worth of technical outerwear over the past decade (at retail). Soft shell has the potential to make every one of those pieces appear very dated from both a fashion (silhouette) and a technical (enhanced breathability) perspective. As with any other emerging market, there are image, margin and bottom-line advantages for retailers who adopt the category early. This special report (which represents an executive summary of a 50-page report prepared by Sports Market Data, our market research division) has been designed to

provide our readers with a “heads up” on the huge soft shell apparel opportunity. For our subscribers who want more (the full comprehensive soft shell report) this will be made available at a nominal cost (with full details at the end of this report).

## **Introduction**

The specialty outdoor retail trade (along with other sports market retailers) has prospered over the past 20 years selling the “layering” concept of technical outdoor dress -- a base layer, combined with an insulating mid-layer and an outer or outerwear layer (typically a two-ply or three-ply “hard shell”). This layering system evolved to its current level of acceptance after W.L. Gore & Associates perfected Gore-Tex (used in “hard shell” outerwear to provide the ultimate protection in hard weather conditions -- 100% waterproof protection, windproof protection, all with breathability).

Now, “soft shell” technology is beginning to offer an alternative to three layers of “layering”. The alternative does not pretend to replicate the strengths of “hard shell” garments -- it does not, for example, offer 100% waterproof protection. Rather, it offers an amount of water repellency and windproofness seen appropriate for most outdoor enthusiasts, along with enhanced breathability (seen as critically important in today’s shifting outdoor apparel marketplace). Further, “soft shell” offers a new look and silhouette, again seen as an advantage given the long 20-year history of “hard shell” looks and silhouettes.

The word “soft shell” has been part of the sports industry vernacular for several years now, with North American pioneers such as Arc’teryx and Cloudveil largely establishing brands based on the soft shell concept. It is in their wake, over the last year, that a raft of new soft shell products have emerged, thrusting outdoor outerwear apparel into a new spotlight and coining “soft shell” as the latest “buzz words” in our trade.

## **Why Is Outerwear Going Soft?**

The advent of soft shell represents the first truly new outdoor apparel technology since Gore-Tex played its key role in introducing “waterproof/breathable” and subsequently “layering” to our market almost 30 years ago. Soft shell represents a huge paradigm shift in the outdoor apparel market -- combining, at this point, outer and mid-layer into one garment (that is comfortable to wear across three seasons, in a wide range -- 80% to 90% -- of daily weather conditions).

Bottom line: soft shell provides the benefits of a separate hard shell/mid-layer combination (in 80% to 90% of fall, winter and spring weather conditions), but in one garment that is designed to “stay on” through the weather conditions encountered during a typical day outdoors.

While the preceding layering technology (with a waterproof/breathable hard shell) was driven by “protection from the elements”, the new soft shell technology is driven by the desire for more breathability. The storm within, as Patagonia says, has grown more important than the storm without! That neatly summarizes the new perspective. It reflects contemporary adrenaline-driven outdoor activities (often pursued in a one-day time frame, near “exit” points) that demand extreme breathability first and foremost (even at the expense of total waterproofness).

While Schoeller clearly pioneered soft shell technology at the fabric level, over the past several years North American and Asian-based fabric suppliers have developed soft shell fabrics with a wide range of attributes. Enhanced breathability (versus hard shell) is a common attribute. Other attributes (more or less important in various soft shell fabrics) include water repellency, stretch, windproofness, external durability and extreme inner-garment comfort across a wide range of temperature and weather conditions.

Additionally, as soft shell began to emerge in North America, the hard shell waterproof/breathable outerwear silhouette was reaching an important juncture. The silhouette was 25 years old and designers were finding it increasingly difficult to create new “takes” on this silhouette. Coincidentally, the problems at The North Face in 2000 (prior to its current ownership) flooded the U.S. market with high-quality hard shell outerwear pieces at very distressed prices. Hence, the value equation of an already tired silhouette was weakened further. Soft shell (which typically combines the outer and middle layers seen in layering technology) offered a dramatically different silhouette with a precise athletic fit (combined with the technicity needed for most outdoor pursuits). Timing, therefore, helped to create widespread interest in soft shell.

### **The Beginnings With Core Outdoor Enthusiasts**

At the same time that the “hard shell” category was experiencing its severe challenges in 2000, a small group of highly technical outdoor enthusiasts were embracing new soft shell designs. These extremely expensive and highly technical garments eliminated the need to “peel layers,” they offered a less bulky (body hugging) alternative with stretch (allowing garments to move with body movements). They also offered wind resistance, durability and water resistance (that could be taken to full waterproofness with the use of a highly packable, extremely lightweight, waterproof/breathable shell). These garments attracted considerable attention among core outdoor enthusiasts because of their new look and functionality. These garments represented the birth of the new soft shell category in North America. Technical. High-end. Different to look at.

It was enhanced breathability that made the new technical soft shell “package” work in the early days. It was the new silhouette, and the full package of soft shell technical attributes, that created wider interest in the soft shell concept. Functionality, it should

be emphasized, was the initial and the secondary market driver. These, from our perspective, are the most important components of that technicity.

**1. Breathability versus waterproofness.** The whole concept was entirely new – enhanced breathability at the expense of 100% waterproofness. To put this in context, a whole generation has grown used to the phrase “waterproof/breathable.” But, the defining words in this technology, as used by W.L. Gore & Associates, are “Guaranteed To Keep You Dry.” While Gore-Tex is both breathable and waterproof, garments using this fabric offer 100% assurance in respect to waterproofness and hence the emphasis has been placed by most retailers on the “no compromise protection” offered by a Gore-Tex garment. No soft shell fabric, to date, even suggests that it offers the same level of “weather protection” as Gore-Tex. Soft shell fabrics, their manufacturers claim, do offer superior breathability to Gore-Tex. For 25+ years, consumers have been educated to the phrase “waterproof/breathable” or both attributes working together. The new paradigm is “breathability versus waterproofness -- how much do you need of each?” For many, that paradigm shift will take a considerable period to absorb.

**2. Versatility.** Traditional layering systems are renowned for their versatility, but require constant adjustments. Heat up from any type of activity, remove a layer; stop for a rest or experience a drop in temperature, add a layer. A single soft shell garment acts as an insulating and outerwear piece. These garments are suitable for three seasons (fall to spring) and for 80% to 90% of the weather encountered during those seasons. There is no need to “peel” when hot or “layer” when cold -- the soft shell efficiently handles those functions automatically. And, it’s the enhanced breathability that puts these garments on “auto pilot” through a range of weather conditions.

**3. Protection.** Waterproof/breathable hard shells typically offer 100% waterproofness (with seam sealing), combined with 100% windproofness and a high level of breathability. Soft shells, as previously detailed, are not designed to provide this “bombproof” weather protection. Soft shells are designed to provide more breathability than hard shells, roughly the same level of wind protection, and high water repellency (enhanced typically by DWR treatments) but not waterproofness.

**4. Durability.** Mountain athletes were the earliest adoptees of the soft shell movement. Technical activities such as ice climbing, backcountry touring and “hiking” to out-of- bounds terrain demanded a high level of abrasion resistance. Hence, from the beginning, durability (and especially abrasion resistance) was addressed by soft shell technologies.

**5. Stretch.** The stretch component of soft shell is essential to accomplish the “motion fit” designs that have helped to define this category. Motion fit designs enhance the ability of technical outdoor athletes, such as ice climbers, to work with less bulk and an enhanced range of motion. The resultant athletic or form-fitting silhouettes move

with the body, similar to a second skin -- thereby maintaining weather protection while reducing bulk and weight. From this genesis has come the new slimmer, more athletic and form-fitting silhouette seen in soft shell garments.

## **The Influence of Fashion**

Outdoor has been an inspiration for fashion since the turn of the last century. The garment styles worn to pursue outdoor sports and activities have been adopted for generations as streetwear. As outerwear. As fashion looks. Certainly that was true of the hard shell outerwear garments that have dominated our trade for the past 25+ years (various studies estimate that 80% or more of these garments were worn only in urban settings). Does soft shell have similar potential? The short answer is “yes” -- the new silhouette is fresh, flattering and youthful. Every customer who purchased a hard shell jacket for streetwear will be compelled (by the lure of fashion) to replace that jacket with a soft shell over time.

The new “athletic outdoor” activities that are currently proliferating demand garments with enhanced breathability. Soft shell is the most obvious direction. So too, skiing (with its new cool factor) is looking for a new silhouette to reflect the freeride and new school attitudes driving growth. Hence, new looks and silhouettes are emerging for these markets. And, these garments will possibly have crossover appeal. The outdoor, in short, maintains its power as a fashion influencer. Soft shell provides the latest manifestation. The stakes, as already cited, are enormous. Sales of technical ski, snowboard and winter outdoor outerwear -- in Canada alone -- amounted to more than \$2 billion at retail over the past decade.

## **Defining the Soft Shell Category**

It seems only yesterday and, in fact is probably only 24 months back, that a respected Canadian specialty outdoor retailer gave us this definition of “soft shell”: “Why,” that retailer said, “it’s the Marmot guide pant, the Cloudveil Serendipity jacket, the Arc’teryx Gamma SV jacket -- you know the pieces!” And, as recently as 24 months ago, soft shell could be defined in terms of pieces. Since then, however, the technical properties and attributes of soft shell have emerged into a better focus. That said, soft shell is a work in progress. Our definition relates to today -- not to tomorrow’s potential. Here it is:

*Soft shell is an emerging apparel category that currently offers highly breathable garments that are also highly abrasion-resistant and highly wind-resistant, that offer stretch and water repellency, and are designed to replace two layers (the inner/insulating and hard shell outer layers of a traditional outdoor-apparel layering system) with one garment.*

We emphasize that the definition is not hard and fast. There are soft shell technologies already in the works to replace all three layers in a traditional layering

system. When and if these become commercially viable, the definition would require change. Also, the plethora of plans (in North America, Europe and Asia) for new soft shell technologies could, over time, require further changes in the definition. The definition we have provided simply reflects today's soft shell technology.

## **The Technology**

At this stage of its development and growth, most soft shell garments are created from three fabric technologies (each with its own attributes). Here's our take on each:

1. **Stretch wovens.** Stretch wovens are the most lightweight soft shell offerings on the market -- popularized by fabrics such as Schoeller-dynamic (a single-layer construction) and Schoeller-dryskin (a double weave with polyester yarn, typically, on the inside). The construction of stretch wovens remain inherently wind and water resistant. Stretch wovens are highly breathable and ideal for high-aerobic activities.

2. **Laminated stretch wovens.** This category of stretch wovens broadens the "versatility" of soft shell by improving weather protection (with enhanced windproofness and water repellency). Both Malden Mills and Schoeller maintain a strong presence in this relatively new category with their respective laminated soft shell technologies. From Malden Mills, Polartec Power Shield consists of a stretch woven nylon face laminated to a Polartec inner fleece (sandwiched between these layers is a breathable, discontinuous stretch poly-urethane membrane that transports both moisture and moisture vapor away from the body). Schoeller WB-400 consists of a fabric surface made of elastic and synthetic fibers for freedom of movement, an acrylate layer or polyurethane coating (instead of an additional membrane) as a middle layer, and an inner layer of brushed, high-volume fleece.

3. **Encapsulation.** EPIC (Encapsulated Protection Inside Clothing) by Nextec is a process that encapsulates the fibers of a fabric with an ultra-thin polymer film. A durable, breathable barrier film is then placed between the fiber bundles. The advantage of this "inside-the-fabric" process is that it will maintain its breathability, thermal efficiency and water repellency after repeated washes. This technology is used by Patagonia in its Regulator soft shell Dimension jacket, for example. Patagonia describes its EncapSil-treated fabrics as two to three times more breathable than traditional shell layering.

Currently there are several key fabric suppliers in the soft shell business, including Malden Mills, Schoeller and Nextec. Soon another, W.L. Gore, will accompany them with a new family of Windstopper soft shell fabrics. Toray in the Orient, Consoltex in Canada and other fabric manufacturers around the world are in the process of developing "soft shell alternatives" that will soon come to market. While fabrics such as laminated stretch wovens will never be "inexpensive," there is already clear evidence that enhanced competition will soon take soft shell fabric prices down to levels acceptable to urban-driven technical outerwear users.

## **Soft Shell -- Why Now in North America?**

While soft shell seems to have just recently come to the industry forefront, this concept has been years in the making. Soft, stretch woven apparel has been around for years, especially in Europe where outdoor enthusiasts have been sporting Mammut pants and lauding their unique functional and comfort paradigm for more than a decade. When Spyder tried to introduce a similar pant to North America in the 1980s, it failed. So why now? Why is North America finally ready for soft shell?

We have already pointed to the wave of hard shell closeouts in 2000 in the U.S., by The North Face and other labels, that diminished the perceived value of waterproof/breathable hard shells. What emerged subsequently was a wave of “waterproof/breathable alternative” technologies that brought the price levels for both 2-ply and 3-ply jackets down dramatically (often by 40% or more). At the same time, a new wave of adrenaline-inspired outdoor activities (typically done in a day or less) began to gain momentum and increased participation. These new activities put primary emphasis on breathability (but also required good water repellency, abrasion resistance, stretch and comfort). As soft shell came to market, its early adopters were demanding, technical outdoor athletes. Soft shell moved into a market void (for a new technology and look) with precisely the right timing.

Then, W.L. Gore & Associates “blinked”. Without compromising its well-established and pinnacle position in the waterproof/breathable hard shell market (both with Gore-Tex and the more breathable PacLite), W.L. Gore validated soft shell with its move into a new family of Windstopper soft shell fabrics. Some of these fabrics have been quickly adopted by technical apparel labels such as Mountain Hardwear, Marmot and GoLite. Ultimately, this validation of soft shell by W.L. Gore will be an important accelerator of acceptance from our perspective.

Soft shell acceptance, therefore, involves a complicated dynamic. Market issues with hard shell pricing. A long-standing hard shell silhouette. New adrenaline-inspired outdoor activities and technical participants. More new soft shell fabrics and technology. Edgy brands that adopted soft shell (including Arc'teryx and Cloudveil) that grew in volume in an otherwise flat outerwear market. The market dynamic represents a mix of all of these forces -- ultimately creating widespread interest in the new direction.

## **The Challenges**

Our perspective is that 2002/2003 will be a “breakthrough” season for soft shell, not in the sense of huge new volumes for the category, but in the sense that new styles will emerge that take soft shell from its initial highly technical niche into broader fashion-driven markets. Ultimately, however, we see soft shell as a strong challenger for dollars that would otherwise be spent on 2-ply hard shell jackets, even 3-ply

jackets and certainly interchange jackets (over a longer time frame, as the soft shell story gets known). The new soft shell story won't be an easy sell. It faces the considerable obstacle of displacing the concept of "layering" in many circumstances. And, it faces the obstacle of proving that it is more suitable for a wide range of outdoor conditions. These, from our perspective, are the principal challenges facing soft shell:

1. **Education.** The concept of one garment that acts as two "layers" creates one level of educational difficulty. When it is also asserted that this one garment is dramatically more breathable than "two layers" and is suitable for use in three seasons and 80%+ of weather conditions in those seasons, the educational challenge is elevated to a whole new level.

Demos? Soft shell could be to the outerwear business what shaped skis were to the snowsports business -- excellent new technology, but almost too good to "believe" without a hands-on demo. It may be that soft shell will emerge as the first demo-proven apparel category in the specialty outdoor market.

2. **Price.** Good soft shell fabrics will never be inexpensive. At present, however, the prices of these fabrics limit applications to very high-tech athletic-inspired designs. It's expected, from our market intelligence, that soft shell fabric prices will come down substantially over the next 12 to 18 months -- by reason of higher volumes, and by reason of new alternative sources just now reaching the market.

3. **Perception.** The past 20+ years has been dominated by tough, bomb-proof fabrics. The concept of a light, stretchy, comfortable garment also offering excellent protection is foreign to the North American consumer's instincts. It's likely this paradigm shift will only take place once a critical mass of consumers try the new products.

4. **Retail merchandising.** While classified most logically as "outerwear," many retailers have merchandised soft shell adjacent to their fleece. Soft shell, to be successful, needs to be presented as a new category (admittedly a "reach" for most retailers just entering this segment).

All of these challenges would be daunting in the best of retail and economic times, but the reality is quite different. The outerwear trade has suffered through four terrible seasons in North America over the past five years -- taking available resources to historic lows. Retailers have, similarly, suffered through several seasons of mediocre outerwear sales (especially on the men's side of the business). While the timing of soft shell is opportune (in terms of the void for something truly new), the timing is inopportune in terms of available resources. These dynamics create a wide-open opportunity for brands and retailers willing to invest in soft shell marketing immediately.



## **Conclusions -- Top 10**

1. Soft shell is emerging as the biggest apparel market opportunity since Gore-Tex in the 1970's.
2. While currently expensive, expect to see soft shell drop into lower price points over the next 12 to 18 months.
3. More fabric suppliers are introducing soft shell programs and companies such as Schoeller, Malden Mills and W.L. Gore can be expected to have continuous domestic and off-shore competition.
4. Slimmer and more athletic silhouettes will help drive soft shell sales.
5. Soft shell will emerge with a "technical/fashion" image at retail, with those allocating an open-to-buy to this new category (and committed to staff PK) likely to become the retail leaders.
6. Soft shell could be to ski fashion what shaped skis were to ski hardgoods – categories that succeeded because of on-hill demos!
7. Soft shell epitomizes the desire for more breathability (the storm within is harder to control than the storm outside) by adrenaline-inspired, Gen-X athletic-outdoor market consumers.
8. Soft shell is suitable for 80% to 90% of weather conditions encountered during three seasons of outdoor activity (fall through spring).
9. Soft shell's acceptance began with hard core outdoor enthusiasts who participate in many of the most challenging outdoor pursuits. That represents an impressive credibility platform as the soft shell concept migrates into other less-technical and even fashion markets.
10. Soft shell will replace a huge chunk of hard shell business. That's because the perception of hard shell's value went south with 2000's closeouts in the U.S. That set the stage for more appreciation of the fact that 100% waterproofness isn't needed most of the time spent outdoors. The rest is evolving history!

There are those who maintain that we have not experienced a "new market" in the sports trade in almost a decade. Whether you agree or disagree, the comment has been relegated to insignificance -- soft shell is the best new opportunity in our trade in more than a decade. The full impact of the trend, from our perspective, won't be felt tomorrow or even this fall, but over the next three to five years.

This report is based on a 50-page report, Is Outerwear Going Soft?, prepared by Sports Market Data. The 50-page report, Is Outerwear Going Soft?, was published by Sports Market Data on March 27, 2002. The full report is available from Sports Market Data for \$129.00. The person to contact at Sports Market Data is Rick Hodgkinson at 705/445-7161 or [rickh@rennies.net](mailto:rickh@rennies.net)