

DuPont™ Active Layer LT

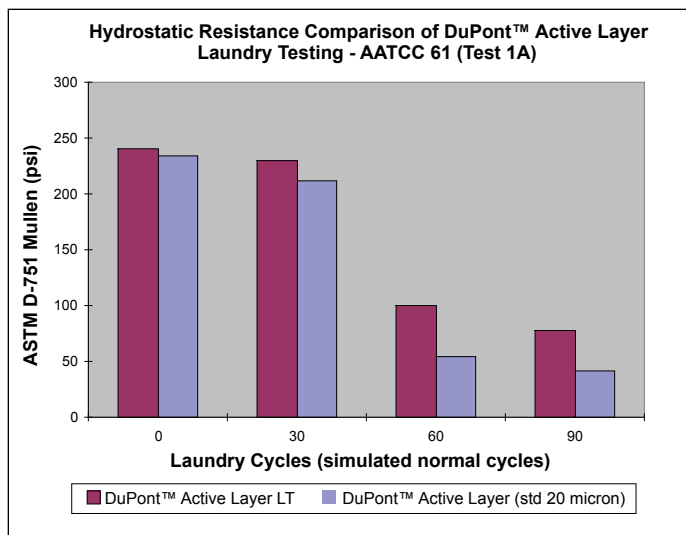
A WATERPROOF, BREATHABLE TECHNOLOGY FROM DUPONT

As the outerwear market continues to demand lighter weight and durable laminated products for use, both on slopes and on the street, there is a need for a waterproof breathable film technology that is compatible with the lighter weight fabrics. DuPont™ Active Layer LT is a new, recyclable* patented technology from DuPont that provides a perfect solution.

It is half the thickness of our standard films but is capable of maintaining a higher level of waterproofness even after 90 laundering cycles. This is evident in **Figure 1**, which compares a fabric laminate with DuPont™ Active Layer LT to the fabric laminate made with our standard film. So now, you can wear your soft shell garment that will consistently keep you dry and comfortable for a longer period of time.

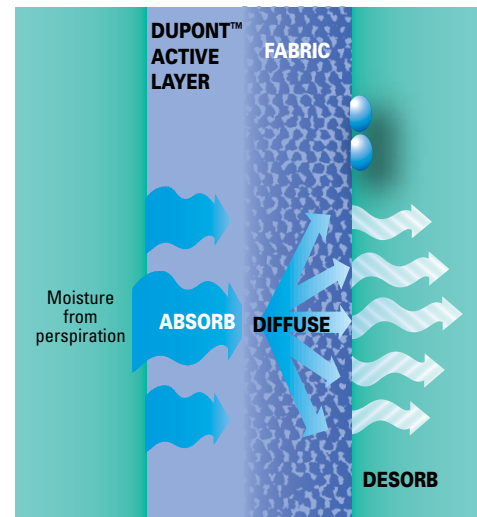
* The film used in DuPont™ Active Layer is recyclable if used with 100 percent polyester fabrics. Currently, there is not a recycling program in place.

Figure 1. Hydrohead comparison after number of laundering cycles.



DuPont™ Active Layer LT is a monolithic film and works on the principle of moisture movement through it by absorption into the film on the side face, transport through the film by water diffusion, and finally, evaporation from the outside face of the fabric. (see **Figure 2**)

Figure 2.



In contrast to microporous structures, DuPont™ Active Layer LT has no pores that can become clogged, which could compromise moisture vapor transmission. Hence, moisture vapor transmission rates are consistent during end use, and garment comfort is not compromised. For Typical properties of DuPont™ Active Layer LT, see **Table 1**.



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**Table 1
Typical Properties**

Property	Unit	Test Method	Typical Value	
Thickness	μ	JIS C2318	10	
Tensile Strength	psi	ASTM D882	MD	4815
			TD	4539
Elongation	%	ASTM D882	MD	159
			TD	177
		JIS K7127	MD	370
			TD	380
Tear Strength, Graves	g/0.001 in	ASTM D1004	MD	145
			TD	172
Dimensional Stability	%	160°C, 15 min	MD	10.8
			TD	9.2
MVTR	g/m ² ·24 hr	JIS L1099 A-1	6100	
		JIS L1099 B-1	71350	
MVTR*	g/m ² ·24 hr	ASTM E-96B	819	
		ASTM E-96BW	9081	

*test condition 73.4°F, 50% RH

Typical Applications

DuPont™ Active Layer is suitable in many end uses where a combination of lightweight and waterproof/breathable performance is required. In particular, DuPont™ Active Layer LT is perfectly suited to be used in performance outerwear garments that are designed to do double duty — perform equally well on slopes and in everyday use.

DuPont™ Active Layer LT is our newest addition to our DAL product line and we welcome an opportunity to work with various companies to explore the suitability of this product in their specific applications.



For further information please contact
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activelayer.dupont.com

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