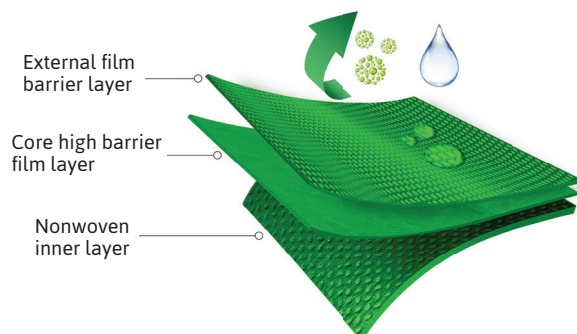




Product name	AlphaTec® 4000
Product material	Multi-layer nonwoven barrier laminate fabric
Color	Green
Material weight	103 gsm / 2.95 oz/yd ²



Physical Properties			
Test Method		Units	Results
Tensile strength (MD)	ASTM D5034	lbs in ⁻¹	66.6
Tensile strength (CD)			51.4
Tear resistance (MD)	ASTM D5733	lbs in ⁻¹	29.4
Tear resistance (CD)			21.1
Burst strength	ASTM D3787	lbs in ⁻¹	158
Puncture propagation tear resistance	ASTM D2582	N	29.4
Flame spread	16 CFR Part 61610	sec	DNI* - Class
Surface resistance at RH 40% - Inner	AATCC 76	Ohms	3.6 x 10 ⁹
Surface resistance at RH 40% - Outer			6.5 x 10 ⁹
Surface resistance at RH 20% - Inner			3.9 x 10 ¹⁰
Surface resistance at RH 20% - Outer			3.5 x 10 ¹¹
Seam strength	ASTM D1683	lbf	57.7

Fabric Repellence & Penetration to Liquid Chemicals - EN 14325					
Test Chemical	Test Method	Penetration Result (%)	EN Class	Repellency Result (%)	EN Class
Sulphuric Acid (30% w/w)	EN ISO 6530	<1	3 of 3	>95	3 of 3
Sodium Hydroxide (10% w/w)		<1	3 of 3	>95	3 of 3
o-Xylene		<1	3 of 3	>90	2 of 3
Butan-1-ol		<1	3 of 3	>95	3 of 3

* DNI - does not ignite

Additional Testing

Test Method		Units	Results
Anti-static Properties (EN 1149-5)	EN 1149-3 (Charge Decay)	$t_{50} < 4 \text{ s}$	Pass
Hydrostatic Head (Water Pressure Test)	AATCC 127	cm H ₂ O	>127
	Limited by test equipment. ISO 811 result >500cm H ₂ O		

Comfort Testing

Test Method		Units	Results
Thermal resistance	ISO 11092	m ² K W ⁻¹	16.8 x 10 ⁻³

Fabric Barrier to Infective Agents - EN 14126

Test Method		Result	EN Class
Resistance to penetration by blood borne pathogens	ISO 16604 / ASTM F1671	Pass to 20 kPa	6 of 6
Resistance to wet bacterial penetration (mechanical contact)	ISO 22610	No penetration (up to 75 min)	6 of 6
Resistance to biologically contaminated aerosols	ISO/DIS 22611	No penetration	3 of 3
Resistance to dry microbial penetration	ISO 22612	No penetration	3 of 3

FINABEL 0.7.C - Resistance to Permeation of Chemical Warfare Agents (suit material only)

Chemical	Detection Limit	Temperature (°C)	Breakthrough Time (hh:mm)
Mustard (HD)	0.1µg/cm ² (pinpoint BT) or 4 µg/cm ² (continuous and homogenous BT)	37	>24:00
Lewisite (L)	Approx. 0.5 µg/cm ²	37	>05:00 <06:00
Sarin (GB)	Approx. 0.05 µg/cm ²	37	>24:00
Soman (GD)	Qualitative	37	>24:00
Tabun (GA)	Qualitative	37	>24:00
VX	Approx. 0.05 µg/cm ²	37	>24:00

Whole Suit Testing

Test Method	
EN 14605:2005+A1:2009	Type 3: Jet Test
EN 14605:2005+A1:2009	Type 4: Spray Test
EN ISO 13982-1:2004+A1:2010	Type 5: Particle Test
EN 1073-2:2002	Radioactive Particulates (Class 1 of 6)*

* Resistance to ignition is not tested as product already carries flammability warning. Note: does not protect against ionizing radiation.

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for online chemical resistance database

Safety Note: All chemical tests and breakthrough times given relate to laboratory tests on fabrics only. Seams and closures may have lower breakthrough times, particularly when worn or damaged. It is the user's responsibility to select an appropriate garment, gloves, boots and other equipment for the particular use. The user shall be responsible for determining how long the garment can be worn for the particular use and whether it can be suitably cleaned for re-use. Ansell Limited does not give any warranties or make any representations about its garments other than those contained in the official literature supplied by Ansell Limited with each garment. Ansell 2024. All rights Reserved.

V. 0124_NA region