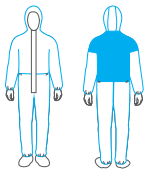
MicroMax® NS Cool Suit

Download Certificate | Download Declaration of Conformity | Bound seams | TYPE 5 | TYPE 6 | EN 1149-5

Microporous film laminate Type 5 & 6 protective coverall with breathable rear panel for comfort & bound seams for added protection and durability.

- Superior quality MicroMax® NS microporous film laminated fabric: excellent barrier to light splashes and sprays of liquids covering critical parts of the body.
- Effective barrier against hazardous dusts.
- Breathable SafeGard™ GP rear panel offers air permeability of 43 cubic feet per minute for wearer comfort.
- Bound seams offers additional protection against dust and liquid ingress and superior strength and durability… effective and cost effective.
- Breathable coverall – reduces the "bellows effect" – the tendency to create "sucking" of air and dust particles in through seam holes, cuffs, ankles and zip.
- Combination of blue and white offers distinctive coverall for visibility.
- Lakeland's "Super-B" style pattern : unique combination of inset sleeves, three-piece hood and "Diamond" crotch gusset – ergonomically designed for superior freedom of movement, comfort and durability.
- Crotch gusset to reduce incidence of burst crotch and improve durability.

MicroMax® NS Cool Suit Style



Style Code: EMNC428
Coverall with elasticated hood, cuffs, waist and ankles. Breathable rear panel.
Sizes: S - XXXL

Available in: White with blue seams and blue rear panel

MicroMax NS Cool Suit® 'Plus' option

The Cool Suit® 'Plus' version features a more extensive rear breathable panel.

Available with panel in blue, red or orange.

Air permeability is a measure of the fabric's tendency to allow air to pass through and is the best indicator of comfort. The higher the breathability, the better the comfort for the wearer. The results show that fabrics such as Microporous films (MicroMax®) and flashspun polyethylene have very low and very similar levels of breathability; both are as close to zero as makes little practical difference. By contrast SMS fabric (SafeGard) has more than ten times the breathability and a standard cotton T-shirt has four times that of an SMS fabric.

Areas shaded green indicate where MicroMax® is equal to or better than the other fabric options.

Physical Properties

		MicroMax® NS /TS	MicroMax®	SafeGard® GP	SafeGard® 76	Flashspun PE
Property	**EN Std**	**CE Class**	**CE Class**	**CE Class**	**CE Class**	**CE Class**
Abrasion Resistance	EN 530	**3**	2	3	6	2
Flex Cracking	ISO 7854	**6**	6	6	6	6
Trapezoidal Tear	ISO 9073	**3/2**	4/2	3	3/2	1
Tensile Strength	EN 13934	**2/1**	2	3	2/1	1
Puncture Resistance	EN 863	**1**	1	1	1	2
Burst Strength	EN 13938	**2**	3	2	3	2
Seam Strength	EN 13935-2	**3**	3	3	3	3

Chemical Repellency and Penetration EN 6530

	MicroMax® NS/TS		MicroMax®		SafeGard® GP		SafeGard® 76		Flashspun PE	
Chemical	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**
Sulphuric Acid 30% CAS No. 67-64-1	**3**	**3**	3	3	3	3	3	3	3	3
Sodium Hydroxide CAS No. 1310-73-2	**3**	**3**	3	3	3	3	3	3	3	3
O-Xylene CAS No. 75-15-0	**3**	**2**	3	2	NT	NT	NT	NT	1	1
Butanol CAS No. 75-09-2	**3**	**2**	3	2	NT	NT	NT	NT	2	1

Breathability - measured by air permeability and moisture vapour transmission rate (MVTR)

	MicroMax® NS/TS	MicroMax®	SafeGard® GP	SafeGard® 76	Flashspun PE	Cotton T-shirt
Air permeability cubic feet/minute (cfm)	**<0.5**	<0.5	40	40	~3.3	180
MVTR	**119.3**	NT	NT	NT	111.2	NT

Infectious Agent / Biological Hazard Protection

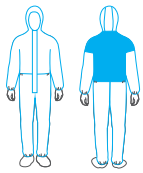
Tested according to EN 14126. This consists of four different tests to assess protection against different forms of classification. Note these tests are on fabric only. We would always recommend a garment with sealed seams such as MicroMax® TS for protection against infectious agent hazards.

Test Description	Test No.	MicroMax® NS/TS	SafeGard® GP/76	Flashspun PE
Protection against blood and body fluids	ISO 16604:2004	**6** (max is 6)	Not recommended	<1
Protection against biologically contaminated aerosols	ISO 22611:2003	**3** (max is 3)	Not recommended	1
Protection against dry microbial contact	ISO 22612:2005	**3** (max is 3)	Not recommended	1
Protection against mechanical contact with substances containing contaminated liquids	EN 14126:2003 Annex A	**6** (max is 6)	Not recommended	1

Introduction: The Cool Suit® Principle - Breathable Protection

What is a Cool Suit®?

- What makes a protective coverall comfortable?
- How do Cool Suits® work?
- What Cool Suit® variations are available?



What makes a protective coverall comfortable?

The primary influence on comfort is air-permeability -

the tendency to allow air to circulate in and out of the suit

The only truly breathable fabric for Type 3, 4, 5 and 6 coveralls is SMS -

primarily suitable for dust and light or low level liquid splash protection.

Claimed Moisture Vapour Transmission Rate(MVTR) is not air-permeability or true breathability and has only a very limited effect on comfort.

Comfort needs air-permeability

Fabrics with an effective barrier cannot also feature high air permeability.

You can have an effective barrier or high air permeability... but not both

Lakeland Cool Suits are a coverall design which combines high breathability fabrics with high-protection fabrics for Type 4, 5 and 6 protection.

How do Cool Suits® work?

The critical protection areas - the **torso** front, the **legs**, the **arms** and **hood** use Lakeland's effective range of protective fabrics, depending on protection type.

The 'Bellows Effect', the movement of air inside the suit created by movement helps pump air in and out of the suit through the breathable panel.

Type 4 Cool Suit Protection: Most chemical protective applications are Type 4 and NOT Type 3. Distinguishing between the two can have benefits in terms of comfort and cost.
See Lakeland 'Guide to Chemical Suit Selection' for more info.

What Cool Suits® options are available?

Type 5 & 6 Protection	Type 4 Chemical Protection	Type 4 Chemical Protection with FR

MicroMax® NS Cool Suit	MicroMax® NS Cool Suit Auto	MicroMax® TS Cool Suit	ChemMax® 1 Cool Suit	ChemMax® 3 Cool Suit	Pyrolon™ CRFR Cool Suit

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