MicroMax® TS

Download Certificate | Download Declaration of Conformity | Stitched & Taped Seams | TYPE 4-B | TYPE 5-B | TYPE 6-B | EN 1073-2 | EN 1149-5 | EN 14126

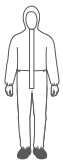
Microporous film laminate fabric with stitched and taped seams for enhanced Type 4 protection

- Addition of taped seams to MicroMax® NS coverall – lightweight and flexible coverall for heavier Type 4 sprays of liquids.
- Fabric passes all tests in the EN 14126 infectious agent standard. Added taped seams makes MicroMax® TS suitable for many medical, pharmaceutical and biological applications.
- Soft and flexible high quality microporous film laminate offers excellent combination of protection and comfort.
- High moisture vapour transmission rate allows escape of vapour to maintain comfort.
- Lakeland "Super-B" ergonomic styling – unique combination of three design elements to optimise fit, durability and freedom of movement.
- Three piece hood for rounder head shape and greater comfort.
- Inset sleeves – torso shaped to body to mazimise freedom of movement and negate the need for thumbloops.
- Two piece crotch gusset – enhances freedom of movement and reduced crotch splitting.

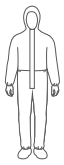
MicroMax® TS Style

SUPER B-STYLE by Lakeland

Style code 428
Coverall with elasticated hood, cuffs, waist & ankles.
Sizes: SM - 3X



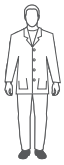
Style code L428
Coverall with elasticated hood, cuffs with thumb loops, waist & ankles.
Sizes: SM - 3X



Style code 414
Coverall with elasticated hood, cuffs, waist and attached socks.
Sizes: SM - 3X

Style code L414
Coverall with elasticated hood, cuffs with thumb loops, waist and attached socks.
Sizes: SM - 3X

Style code 412
Coverall with collar, elasticated cuffs, thumb loops, waist & ankles.
Size: MD - XL



Style code 101
Lab coat with two hip pockets. 4 stud fastening.
Size: MD - XL

Style code 024
50cm sleeves with elasticated ends.
Size: One size

Style code 020
Cape hood with elasticated face opening.
Size: One size

Style code 022 - Standard overshoes with elasticated top — **Size:** One size
Style code 022NS - Overshoes with elasticated top, anti-slip sole — **Size:** One size
Style code 022ANS - Overshoes with elasticated top, anti-static sole — **Size:** One size
Style code 023NS - Overboots with elasticated top, 2 ankle ties and anti-slip sole — **Size:** One size

Available in: White

Not all styles are available from European stock in this fabric. Please contact our sales office for information on stock items.

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	2	1	2	2	2
Flex Cracking	ISO 7854	4	5	5	5	6
Trapezoidal Tear	ISO 9073	2	3	3	3	1
Tensile Strength	EN 13934	1	1	1	1	1
Puncture Resistance	EN 863	1	2	1	1	2
Anti-static (Surface Resistance)	EN 1149-1	Pass* (<2.5 x $10^9\Omega$)	Pass* (<2.5 x $10^9\Omega$)	Pass* (<2.5 x $10^9\Omega$)	Pass* (<2.5 x $10^9\Omega$)	Pass* (<2.5 x $10^9\Omega$)
Seam Strength	EN 13935-2	3	3	3	3	3

* According to EN 1149-5

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	3	NT	NT	NT	NT	1	1
Butanol CAS No. 75-09-2	3	2	3	3	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

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Lakeland®

Clothing For Protection against Hazardous Chemicals

Selecting the right chemical suit for the job is vital to ensure not only are workers properly protected but that they are not over-protected – which could mean paying more than you need for PPE and that workers suffer more discomfort than necessary.

Chemical protection is defined by three key standards:

Type 4 EN 14605	Type 3 EN 14605	Type 1 EN 943-1&2
protection against sprays of hazardous liquids	protection against jet sprays of hazardous liquids	protection against hazardous vapours and gases
Type 4 Garments: ChemMax® 1 EB MicroMax® TS Cool Suit ChemMax® Cool Suits Pyrolon™ CRFR Cool Suit	**Type 3 & 4 Garments:** ChemMax® 1 and 2 ChemMax® 3 and 4 Pyrolon™ CRFR and CBFR	**Type 1 Garments:** Interceptor® Plus *Note: Type 2 has been removed in the 2015 version of EN 943 so no longer exists.*

Consider three key factors when selecting the most appropriate clothing for an application

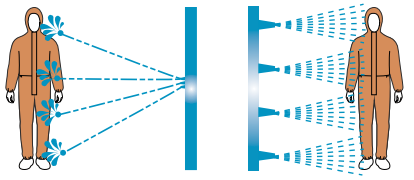
1. The chemical

- 'Breakthrough time' provided by (EN 6529 or ASTM F739) permeation tests can be used for comparison of fabrics but provides no information about how long you are safe.
- Consider the hazard presented by the chemical:
  How toxic is it?
  Is it harmful in very small quantities?
  Is it carcinogenic or causes long term harm in other ways?
- Is the application performed in a warm temperature? (permeation rates increase at higher temperatures). What effect does temperature have on the safe use time?
- Calculate a maximum safe use time using permeation rates, temperature & chemical toxicity.

Use **PermaSURE®** to calculate safe-use times for Lakeland chemical suits **ChemMax® 3**, **ChemMax® 4 Plus** and **Interceptor® Plus**

2. Which hazard / spray type?

- Protection against gases and vapours may require a Type 1 gas-tight suit such as Interceptor® Plus
- The type of spray in the application indicates whether a Type 3, 4 or 6 garment is required.
- However, with a highly toxic chemical even if the spray type indicates a Type 6 garment, a higher level of protection might be appropriate.



Type 3 Strong jet sprays

Type 4 Shower sprays

Approximately 80% or more applications in the market are Type 4 and not Type 3.

Type 3 or Type 4?

Determining that the application is Type 4 rather than Type 3 means selecting more comfortable options such as a **ChemMax® Cool Suit.**

3. Physical / environment factors

- A variety of factors relating to the task and where it is performed can influence the choice of garment.
- Three groups of factors can be considered.

Factors relating to :		
The Task	**The Environment**	**Others**
For example: Kneeling / crawling? Climbing? Confined space? Mobility?	For example: Visibility?, Moving vehicles? Sharp edges?, Heat or flames? Warm conditions? Explosive atmosphere?	For example: Co-ordination with other PPE? Training required? Donning and doffing? Regulatory issues?
		

All such factors may influence the choice of fabric and garment design: (physical properties, colour, noise level and additional properties such as flammability).

CE Standard physical tests can be used to assess comparative performance in terms of durability using abrasion resistance, tear strength etc.

Use the QR Code or visit:

https://promo.lakeland.com/europe/chemical-suit-selection-guide

For more information about the factors that contribute to ensuring you select the most appropriate and effective chemical suit for the job, along with details on how to assess safe-wear times, download our **Guide to Chemical Suit Selection**

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** Competitor brand results are from competitors' own websites and were correct at the time of publication. Users are recommended to check up to date information with competitors before making any assessment based on specific chemicals. Other chemical test results may be available from competitors.*

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