ChemMax® 3

Powered by PermaSURE®

Download Certificate | Download Declaration of Conformity | Stitched & Taped Seams | TYPE 3-B | TYPE 4-B | TYPE 5-B | TYPE 6-B | EN 1073-2 | EN 1149-5 | EN 14126

Superior multi-layer barrier films laminated to spunbond PP substrate - 170gsm.

- Extruded fabric construction. Results in smoother and more consistent fabric than bonded or glued competitors.
- Superior softness and flexibility and more consistent chemical barrier (no 'pinching' or thinner bond points as seen in competitor fabrics).
- European manufactured fabric, tested against a full range of chemical warfare agents for anti-terror and civil defence operations.
- Very low noise level. Safer and improved comfort.
- Cushioned double-layer knee pads for increased comfort and safety.

- Improved Super-B style coverall: superior fit, wearability and durability.
- Three-piece hood, inset sleeves and diamond crotch gusset results in best fitting garment on the market.
- New design three-piece hood with tapered centre piece for superior face and respirator mask fit.
- New higher neck and zip flaps for improved face/neck protection.
- Double zip & storm flap front fastening for safe and secure protection.

ChemMax® 3 Styles

SUPER B-STYLE

428

Coverall with elasticated hood, cuffs, waist & ankles. Double front zip fastening, cushioned kneepads.
Size: SM - 3X

L428

Coverall with elasticated hood, cuffs, waist & ankles. Double front zip fastening, cushioned kneepads. Thumb loops.
Size: SM - 3X

430

Coverall 'Plus' with hood and attached feet/boot flap Elasticated cuffs and waist. Double front zip fastening, cushioned kneepads.
Size: SM - 3X

430G

Coverall 'Plus' with hood and attached feet and gloves using Push-Lock® connection. Elasticated cuffs, waist & ankles. Double front zip fastening, cushioned kneepads.
Size: SM - 3X

400

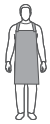
Encapsulated suit with flat back. To be worn with a breathing mask fed by compressed air hose. This can be fed through the air inlet hose to the mask worn inside the suit.
Size: MD - 2X

450

Encapsulated suit with expanded back. To be worn with self-contained breathing apparatus for breathing purposes.
Size: MD - 2X

527

Smock / Gown with rear entry / ties and elasticated cuffs.
Size: MD - XL



025

Apron with ties
Size: MD - XL

024

Sleeves
Size: One size

023NS

Overboots with anti-slip sole
Size: LG-XL

021

Cape hood with rear inlet pigtail
Size: One size

Available in: Grey Orange

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

Physical Properties

		ChemMax® 3	Brand C	Brand D
Property	**EN Standard**	**CE Class**	**CE Class**	**CE Class**
Abrasion Resistance	EN 530	6	6	6
Flex Cracking	ISO 7854	4	1	5
Trapezoidal Tear	ISO 9073	4	2	3
Tensile Strength	EN 13934	3	3	2
Puncture Resistance	EN 863	2	2	2
Surface Resistance	EN 1149-1	Pass* ($<2.5 \times 10^9\Omega$)	Pass* ($<2.5 \times 10^9\Omega$)	Pass* ($<2.5 \times 10^9\Omega$)
Seam Strength	EN 13935-2	4	4	4

* According to EN 1149-5

Permeation Test Data *

Liquid chemicals from EN 6529 Annex A. For a full list of chemicals tested see Permeation Data Tables or Chemical Search at www.lakeland.com/europe. Tested at saturation unless stated.

		ChemMax® 3	Brand C	Brand D
Chemical	**CAS No.**	**CE Class**	**CE Class**	**CE Class**
Acetone	67-64-1	6	6	6
Acetonitrile	70-05-8	6	6	6
Carbon Disulphide	75-15-0	6	6	Imm
Dichloromethane	75-09-2	6	Imm	Imm
Diethylamine	209-89-7	NT	6	Imm
Ethyl Acetate	141-78-6	6	6	6
n-Hexane	110-54-3	6	6	6
Methanol	67-56-1	6	6	6
Sodium Hydroxide (30%)	1310-73-2	6	NA	6
Sulphuric Acid (96%)	7664-93-9	6	6	6
Tetrahydrafurane	109-99-9	6	6	6
Toluene	95-47-6	6	6	6

* NB = normalised breakthrough. This is the time taken for the PERMEATION RATE to reach 1.0µg/minute/cm^2 in controlled laboratory conditions at 23°c. It is NOT the point at which breakthrough first occurs.
For safe use times see Selection Guide and PermaSURE®.

PermaSURE® Use PermaSURE® to quickly calculate safe wear times for ChemMax® 3

035-UK-1121

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

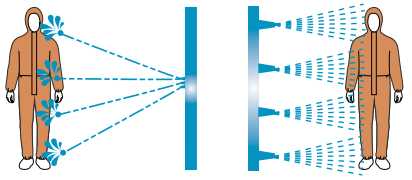
1. The chemical

- '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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