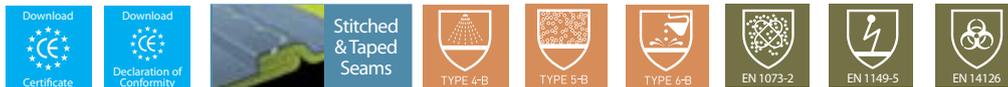


# ChemMax® 3 Cool Suit



The ChemMax® 3 Cool Suit uses the unique Type 4 Cool Suit® design with Lakeland's superior protection ChemMax® 3 chemical suit fabric to produce a high barrier chemical splash suit that features improved comfort over standard chemical suits.



- ChemMax® 3 coverall with a breathable rear panel covered by a ChemMax® 3 flap sealed at top and sides and with an open overlapped flap at the bottom to allow free circulation of air inside and outside the suit.
- ChemMax® 3 fabric works with the PermaSURE® app for easy calculation of real-world safe use times.
- Grey fabric with orange rear panel and knee pads for easy identification.
- The 'bellows effect' assists in ensuring effective circulation of air.
- Stitched and taped seams for effective protection.
- Multi-layer coextruded polymer fabric for superior chemical barrier and a smooth and flexible finish with no 'pinched' bond points.
- Contrast colour cushioned kneepads for additional comfort and safety
- Suitable for protection against a broad range of hazardous chemicals in applications with Type 4 splashes and sprays\*
- Super-B style pattern featuring three piece hood with tapered centre section, two-piece crotch gusset and inset sleeves.

\* Note: ChemMax® Cool Suits are for Type 4 applications only. The covered breathable rear panel has a much lower chemical barrier than the main body fabric and so the garment should not be used in any application where there is a possibility of a chemical being sprayed or splashed under the rear flap.

### Physical Properties

Property	EN Standard	ChemMax® 3	Brand C	Brand D
		CE Class	CE Class	CE Class
Abrasion Resistance	EN 530	6	6	6
Flex Cracking	ISO 7854	1	1	5
Trapezoidal Tear	ISO 9073	4	2	3
Tensile Strength	EN 13934	3	3	2
Puncture Resistance	EN 863	2	2	2
Anti-static (Surface Resistance)	EN 1149-1	Pass* (<2.5 x 10 <sup>9</sup> Ω)	Pass* (<2.5 x 10 <sup>9</sup> Ω)	Pass* (<2.5 x 10 <sup>9</sup> Ω)
Seam Strength	EN 13935	4	4	4

\* According to EN 1149-5

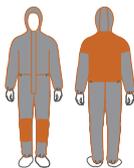
### Permeation Test Data \*

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](http://www.lakeland.com/europe). Tested at saturation unless stated.

Chemical	CAS No.	ChemMax® 3	Brand C	Brand D
		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
Tetrahydrofuran	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<sup>2</sup> 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®.

## ChemMax® 3 Cool Suit Styles



Styles Code: CT3SCF428

Coverall with elasticated hood, cuffs, waist and ankles

Sizes: SM - 3X



Available in: Grey (with orange seams and rear panel)



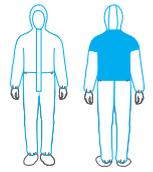
\* Competitor brand results are from competitors' own websites and were correct at the time of publication. Users are recommended to check up to date information with competitors before making any assessment based on specific chemicals. Other chemical test results may be available from competitors.

The physical and permeation data relates to the ChemMax® 3 main body fabric only and not to the concealed rear breathable panel which has different properties and much lower resistance to penetration or permeation of chemicals. For properties of the breathable panel see SafeGuard™ GP information.

# 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.

All Cool Suits® feature a rear panel of highly air-permeable fabric.



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.

Air can circulate in and out of the coverall through the breathable panel, keeping the wearer more cool and comfortable.

In the case of Type 4 Chemical Protective Cool Suits®, the breathable panel is protected by a cover sealed at top and the sides and left open at the bottom.



**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® TS Cool Suit



ChemMax® 1 Cool Suit



ChemMax® 3 Cool Suit



Pyrolon™ CRFR Cool Suit