# ChemMax<sup>®</sup> 4 Plus Powered by PermaSURE<sup>®</sup>





#### **ChemMax® 4 Plus Styles** Style code 430G Coverall with hood and Style code 428 Style code L428 Style code 430 Coverall with hood Coverall with elasticated Coverall "Plus" version cuffs waist & ankles hood cuffs waist & ankles with attached feet/boot attached feet. Double zip/ Double front zip fastening, Double front zip fastening, flap and double cuffs storm flap, double cuff with attached gloves using Push-Lock® connection cushioned kneepads cushioned kneepads. thumb loops system. Sizes: S - XXXL Sizes: S - XXXL s: S - XXXL Sizes: S - XXXL Style code 527 Smock / Gown with Style code 025 Style code 024 Style code 023NS Style code 021 Cape hood with rea Overboots with antirear entry / ties and slip sole inlet pigtail elasticated cuffs Size: M - XL Size: M - XL Size: One size Size: L - XL Size: One size Available in: Military Yellow Not all styles are available from European stock in this fabric. Greer Please contact our sales office for information on stock items.

# Superior multi-layer barrier films laminated to spunbond PP substrate - 210gsm.

- 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 soft and flexible materials for enhanced 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.

Physical Properties											
		Brand C	Brand D	ChemMax®4 Plus	Brand E	Brand F					
Property	EN Std	CE Class	CE Class	CE Class	CE Class	CE Class					
Abrasion Resistance	EN 530	6	6	6	6	6					
Flex Cracking	ISO 7854	1	5	1	1	1					
Trapezoidal Tear	ISO 9073	2	3	MD 5 / CD 4	5	3					
Tensile Strength	EN 13934	3	2	3	4	4					
Puncture Resistance	EN 863	2	2	2	2	2					
Burst Strength	EN 13938	NA	2	2	NA	NA					
Seam Strength	EN 13935	4	4	4	5	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.

		Brand C	Brand D	ChemMax®4 Plus	Brand E	Brand F
Chemical	CAS No.	CE Class	CE Class	CE Class	CE Class	CE Class
Acetone	67-64-1	6	6	6	6	6
Acetonitrile	70-05-8	6	6	6	6	6
Carbon Disulphide	75-15-0	6	lmm	6	6	6
Dichloromethane	75-09-2	lmm	lmm	6	6	6
Diethylamine	209-89-7	6	lmm	6	6	6
Ethyl Acetate	141-78-6	6	6	6	6	6
n-Hexane	110-54-3	6	6	6	6	6
Methanol	67-56-1	6	6	6	6	6
Sodium Hydroxide (30%)	1310-73-2	NA	6	6	6	6
Sulphuric Acid (96%)	7664-93-9	6	6	6	6	6
Tetrahydrafuran	109-99-9	6	6	6	6	6
Toluene	95-47-6	6	6	6	6	6
Chemical- gas						
Ammonia 99%	7664-41-7	6	6	6	6	6
Chlorine 99.5%	7782-50-5	6	6	6	6	6
Hydrogen Chloride (99%)	7647-01-0	6	6	6	6	6

\* NB = normalised breakthrough. This is the time taken for the PERMEATION RATE to reach 1.0µg/minute/cm 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®.

Areas shaded green indicate where ChemMax<sup>®</sup> 4 Plus is either equal to or better than the equivalent brand C, D, E and F products.

# Super-B Style New and Improved Design Features

# 1. Three-Piece Hood

The three-piece hood results in a 3D shape which is more rounded and fits the head better, moving freely with wearer movement and resulting in a more comfortable and durable garment. ChemMax® now features a unique tapered

centre piece resulting in an even better fitting hood.

#### 2. Inset Sleeves -

Inset sleeves result in greater freedom of movement and less stress on seams especially at the crotch.

In addition there is less pulling back of sleeves during use, so ChemMax® garments need no thumb loops - which can catch on machinery and be a hazard.

#### 3. Diamond Crotch Gusset

The crotch features a diamond shaped 2-piece gusset which creates a better fitting shape allowing greater freedom of movement and takes stress away from the critical crotch area.

4. Cushioned Knee-pads ChemMax<sup>®</sup> 1, 2, and 3 features large padded knee-pads. A double fabric layer with cushioning material between means increased comfort and safety when kneeling on rough surfaces.



Seams

All ChemMax® coveralls feature stitched and taped seams for maximun strength and protection.

# 5. Updated neck and zip design!

Higher neck, zip and zipflap. Better protection at the neck.



#### 6. Chest Label

Lakeland chest labels feature all CE labelling requirements. So users and manager's can easily see wearers have the correctly certified garment.

# 7. Double Zip and Storm Flap

Lakeland's multi-layer double-zip and flap results in more secure protection at the front fastening - the most critical area of the garment.

#### 8. Push-Lock® Glove Option

Combine ChemMax<sup>®</sup> with Lakeland's unique Push-Lock<sup>®</sup> Glove Connection System. Leak-proof, Type 3 approved glove connection for ChemMax® Coveralls.



The combination of features in the Lakeland Super-B style results in an even better fitting, more comfortable, more durable garment with better protection than ever!

Body Height (cm)

164-170

170-176

176-182

182-188

189-194

194-200

Selection of the appropriate sized garment is

important in maximising comfort, protection and

Lakeland garments are cut and sized generously and

according to the Super-B style for maximum freedom.

84-92

92-100

100-108

108-116

116-124

124-132

# **Chemical Suit Selection**

Selection of an appropriate chemical suit is vital in ensuring and optimising protection, comfort and cost.



Physical/ environmental factors?

The primary consideration is the chemical. What does a permeation test 'breakthrough' mean? How toxic is it and how much will cause harm? How to calculate safe-use times. What type of spray hazard does the application

Determining which applies, can have important consequences for garment options

What physical and environmental factors might be important in the application?

uest your copy of 'The Guide to Chemical Suit Selection' from **sales-india@lakeland.com** 

#### Storage Shelf-Life Lakeland coveralls are supplied With bags un-opened, properly individually (unless specified) in stored in cool, dry conditions and sealed, vacuum packed in polythene away from sunlight or strong light. garments should achieve a shelf bags and outer cardboard cartons. disposed of suitably. life of ten years or more. Some As materials are unaffected by normal conditions discolouration may occur over garments can be stored in standard warehousing time, especially in garments left facilities. In general keep dry and avoid very warm in sunlight and in particular white temperatures or temperatures below -15°C

Avoid direct sunlight or other strong light for extended periods.

fabric may gain a slight vellow tinge, but this does not affect garment performance.

For suits designed to protect against hazardous chemicals we would recommend that after a maximum of 10 years, suits are downgraded to "training suits" or

**3ody Height** 

**Garment Sizing** 

Before use, all garments, regardless of age, should always be given a visual inspection for any damages or tears and to ensure any parts such as zips etc. function properly Any garments that are damaged or worn in any way should not be used in any hazardous situation.

#### Disposal

Size

S

М

L

XL

XXL

XXXI

2

durability.

Chest

Waist

Uncontaminated garments can be disposed of via any standard method and according to local regulations. They be included with standard refuse into landfill or can be incinerated without any hazardous emissions - subject to local legal requirements.

However, garments contaminated with any chemicals must be disposed of appropriately with particular reference to the disposal requirements of the chemical and any local or national regulations. It is the users' responsibility to ensure contaminated garments are disposed of appropriately accordingly. Special instructions are available on request for Interceptor® Plus.

\* 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.

82-88

88-94

94-100

100-106

106-112

112-114

W: www.lakeland.com E: sales-india@lakeland.com Lakeland Gloves and Safety Apparel Pvt Ltd A division of Lakeland Industries Inc, USA.

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