



Disposable & Chemical Protective Clothing

MicroMax® Disposable Protective Clothing

Advanced microporous fabric
for your toughest, general
purpose jobs.

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Pyrolon®

The only secondary FR work
wear subjected to thermal
mannequin test that is proven
to reduce body burn.

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ChemMax® Chemical Protective Clothing

Optimized for strength, weight,
and flexibility for progressive
protective against a range of
chemical hazards.

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FR DISPOSABLE CLOTHING

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Chemical resistance and flame resistance in one disposable protective garment

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Advanced chemical barrier and flame resistance for the highest chemical hold-out

NOTE THAT IT IS UP TO THE PROFESSIONALS RESPONDING TO ANY INDUSTRIAL OR VIRAL ENVIRONMENT TO DO A THOROUGH HAZARD ASSESSMENT BASED ON THE TASK TO BE PERFORMED AND DETERMINE THE COMPLETE PPE ENSEMBLE FOR THE HAZARD(S) THEY WILL FACE.

RESOURCES

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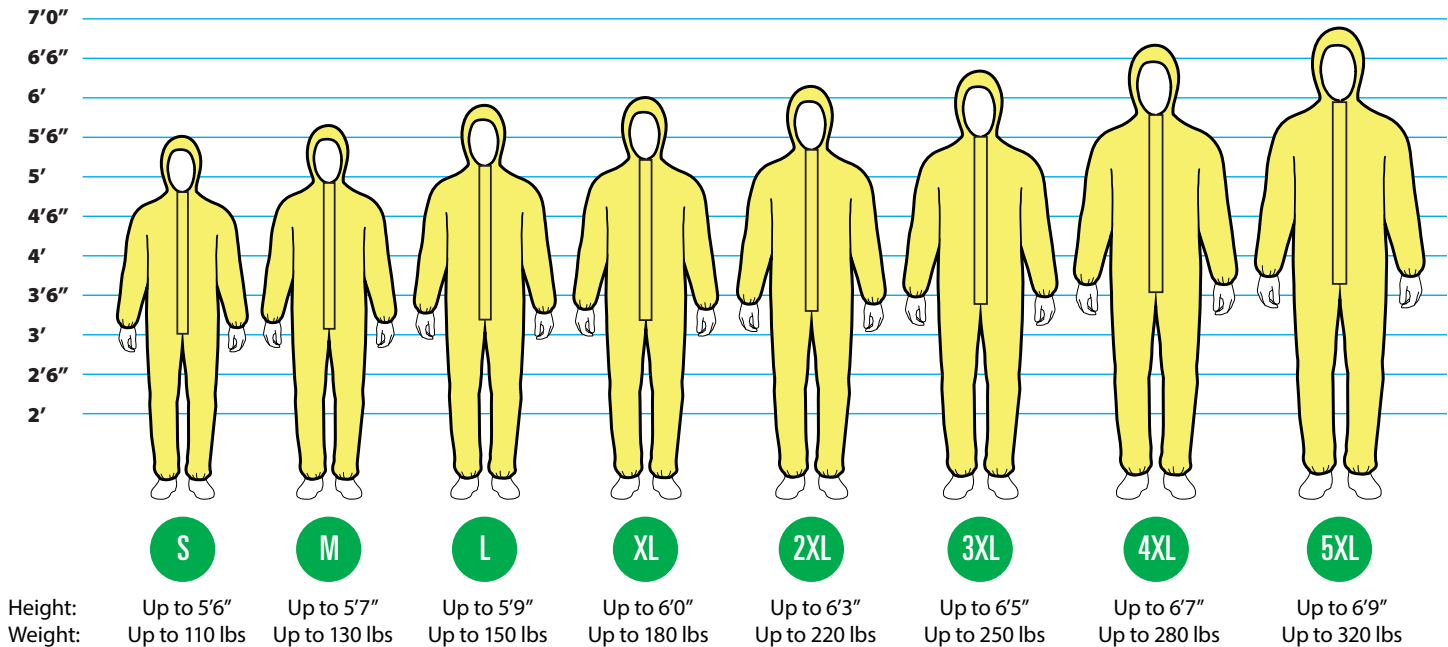


PROTECTING WORKING PROFESSIONALS SINCE 1982

Lakeland Industries is a global manufacturer of personal protective equipment, specializing in disposable and chemical protective apparel, FR/AR clothing and protective gear for first responders.

For 40 years Lakeland has provided products to the working professionals in Electric and Gas Utilities, the Oil and Gas Industry, General Manufacturing, Public Safety and the Petrochemical sectors, keeping workers both safe and comfortable on the job.

LAKELAND BRAND DISPOSABLE/CHEMICAL SIZING GUIDE



The above chart is a suggested guide for garment selection. Proper fit varies with individual body shape and allowances should be made for clothing that will be worn underneath the garment. **Always choose the larger size should you fall in between the suggested guidelines or are uncertain on which size to select.**

Critical Protection - Tested Performance

Hazard Type	Product Line	Test Method	Test Results
Blood and Infectious Agent	MicroMax® NS Global	ISO 16604:2004 Protection against Blood and Body Fluids	Pass Class 6 (Maximum Level)
		ISO 22611:2003 Protection against Biologically Contaminated Aerosols	Pass Class 3 (Maximum Level)
Bloodborne Pathogens	MicroMax® NS Global	ASTM F1670 Liquid Penetration to Synthetic Blood	Pass
	MicroMax® VP	ASTM F1671 Viral Penetration ϕ X174 Bacteriophage Suspension	Pass
Pesticide Protection	MicroMax® NS	ASTM F903 Penetration Testing – Diazinon (Roundup)	Pass
Isocyanate Based Paint	MicroMax® NS Global	ASTM F903 Penetration Testing	Pass
Ammonia – 99% Anhydrous Gas (CAS Number 7664-41-7)	Pyrolon® CBFR	ASTM F739 Permeation Testing	>480 minutes

Fentanyl - Testing per ASTM D6978

Product Line	Test Drug and Concentration	Minimum Breakthrough Detection Time (Specimen 1/2/3) (Minutes)	Steady State Permeation Rate (Specimen 1/2/3) (μ g/cm ² /minute)	Other Observations
MicroMax® VP*	Fentanyl Citrate Injection, 100 mcg/2mL	>240	NA	Slight swelling; no degradation
ChemMax® 1**	Fentanyl Citrate Injection, 100 mcg/2mL	>240	NA	Slight swelling; no degradation

* MicroMax® VP fabric holds out liquid Fentanyl, but is only recommended for Fentanyl in powder form due to serged seam construction

** ChemMax® 1 has >240 min hold out for liquid Fentanyl; Taped/Sealed Seam Garments are recommended for Fentanyl in liquid form

Users should also ensure the gloves they are using for chemotherapy have been tested against the most recent standards. The current standard for exam gloves used in chemotherapy is ASTM D6978-05 "Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs."

Prior to ASTM D6978-05 many exam gloves were tested against ASTM F739 "Resistance of Protective Clothing Materials to Permeation by Liquids or Gases Under Conditions of Continuous Contact". ASTM D6978-05 uses ASTM F739 as a test method, but has a chemical permeation requirement that is 10 times more stringent than what is required by ASTM F739. Users of gloves tested under ASTM D6978-05 have a higher level of confidence that the gloves they are using are tested to the current, more stringent ASTM standard."

LAKELAND BRAND PRODUCT RANGE OVERVIEW

CHEMICAL PROTECTION	Interceptor® Plus	Interceptor® Plus achieves the highest levels of chemical protection required for extremely hazardous areas, including Level A HazMat response. All supported by PermaSURE.
	ChemMax® 4 Plus	ChemMax® 4 Plus fabric incorporates a 6 layer protective barrier system and is supported by the PermaSURE Toxicity Risk Modeler Software Application.
	ChemMax® 3	ChemMax® 3 barrier film is soft and durable while providing superior protection from both chemicals and chemical warfare agents, all while backed by the PermaSURE database of 4,000+ chemicals.
	ChemMax® 2	ChemMax® 2 fabric is built with the proven protection of Saranex® 23P barrier film to provide superior and economical chemical protection.
	ChemMax® 1	ChemMax® 1 fabric is comprised of a polyethylene (PE) barrier film and a continuous filament polypropylene nonwoven fabric. Lightweight and durable protection for most industrial acid and base chemicals.
FLAME RESISTANT PROTECTION	Pyrolon® CBFR	Pyrolon® CBFR offers the highest level of chemical protection for harsh environments that also require primary Flame Resistant apparel due to flash fire concerns.
	Pyrolon® CRFR	Pyrolon® CRFR fabric utilizes a 2.5 mil proprietary FR barrier film to provide chemical protection for primary FR/AR garments that won't melt or drip in a flash fire scenario.
	Pyrolon® Plus 2	Pyrolon® Plus 2 provides highly breathable, secondary FR protection, to keep primary FR/AR garments free from contamination by dirt, grease, oil, hydraulic fluid and other dry particulate, aerosol and light liquid hazards.
DISPOSABLE PROTECTION	MicroMax® VP	MicroMax® VP garments are specifically tailored for protection from the risk of blood, body fluids and bloodborne pathogens. ASTM F1670/F1671 for blood and viral and designed with no exposed seams or points for liquid penetration on the forward-facing portion of the garment.
	MicroMax®	MicroMax® is comprised of a high-quality, light-weight microporous fabric that provides a high-level of liquid and dust repellency. Select MicroMax® product lines feature an additional polyester ripstop scrim between the film and substrate for additional strength.
	SafeGard® SMMS	SafeGard® fabric is a layering of Spunbond-Meltblown-Meltblown Spunbond polypropylene filaments to provide breathable protection against aerosols and light liquids, as well as particle filtration down to 10.0 microns.

LAKELAND BRAND PROTECTION LEVELS AND SEAM STYLES

Product Applications	General Protection				Aerosol/Spray			
	Dirt, Oil and Grease	Hazardous Dry Particulate	Non-Hazardous Liquids	Welding, Cutting and Grinding	Non-Hazardous Liquids	Paint, Hazardous Liquids	Dry Particles	Flammable Environment
MicroMax® NS	☐	☐	☐		☐	☐	☐	
MicroMax® NS Cool Suit	☐	☐	☐		☐	☐	☐	
MicroMax®	☐	☐	☐		☐	☐	☐	
MicroMax® VP								
SafeGard® SMMS	☐	☐	☐		☐	☐	☐	
Pyrolon® Plus 2 *	☐	☐		☐		☐	☐	☐
Pyrolon® CRFR *		☐	☐		☐	☐		☐
Pyrolon® CBFR		☐	☐					☐
ChemMax® 1		☐	☐		☐	☐	☐	
ChemMax® 2					☐	☐	☐	
ChemMax® 3						☐		
ChemMax® 4 Plus								
Interceptor® Plus**								

* Must be worn over thermally protective clothing, such as flame resistant cottons, aramids or mono acrylics.

** Interceptor meets the requirements of NFPA 1991 limited flash fire for escape only option.

*** Does not apply to MicroMax® NS ANSI products

Product Seam Availability

Product	Serged Seam	Bound Seams	Heat Sealed Seams	Heat Sealed Plus Seams
MicroMax® NS	☐			
MicroMax® NS Cool Suit	☐			
MicroMax®	☐			
MicroMax® VP	☐			
SafeGard® SMMS	☐			
Pyrolon® Plus 2	☐			
Pyrolon® CRFR			☐	
Pyrolon® CBFR			☐	
ChemMax® 1	☐	☐	☐	
ChemMax® 2		☐	☐	
ChemMax® 3			☐	
ChemMax® 4 Plus			☐	
Interceptor® Plus			☐	☐

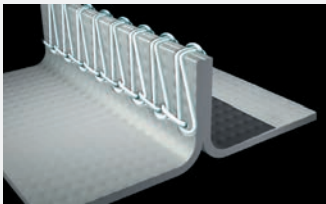
The Seam You Choose
is Determined By:

**Your Work
Environment and
Your Potential Risk
of Hazard Exposure**

Chemical Splash			Hazmat		Critical Environment / Biohazard				
Low Exposure, Low Risk	High Exposure, High Risk	Flammable Liquids	Hazmat, Maritime	Hazmat Non-Certified	Paint Booth	Bloodborne Pathogens	Waste Water Treatment	Flash Fire Chemical	Clean Room
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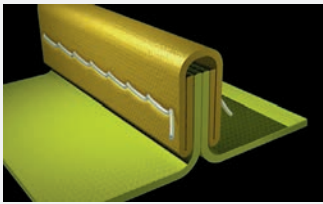
Serged Seam
Low Risk of Hazardous Exposure



A serged seam joins two pieces of material with a thread that interlocks. This is an economical stitching method for general applications. This stitching method is generally not used for chemical protective clothing. It is more commonly found on disposable clothing where dry particulates are a concern.



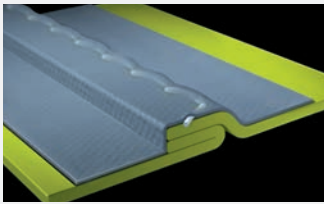
Bound Seam
Moderate Risk of Hazardous Exposure



A bound seam joins two pieces of material with an overlay of similar material and is chain stitched through all layers for a clean finished edge. This provides increased holdout of liquids and dry particulates.



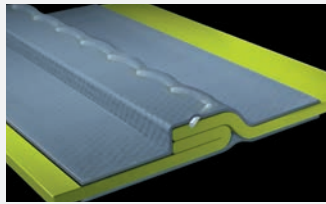
Heat-Sealed Seam
High Risk of Hazardous Exposure



A heat-sealed seam is sewn and then sealed with a heat-activated tape. This method provides liquid-proof seams and is especially useful for Level A and B chemical protective clothing.



Heat-Sealed Plus Seam
Maximum Risk of Hazardous Exposure



This is the ultimate and strongest seam that Lakeland offers. The seam is sewn and then heat sealed on the outside and inside to offer the highest strength and chemical resistance.

SafeGard® Global Pattern SMMS Coveralls

Economical dry particulate and light liquid splash protection

SafeGard® SMMS Applications

Automotive

Aerospace

Paint Booth Overspray

Boat Manufacturing

General Maintenance



Serged Seam

SafeGard® SMMS Global Pattern Features:

- Global standardized testing and certification (CE Certified Type 5/6)
- Four sizing options to simplify ordering and reduce inventory requirements
- Serged seams
- Anti-Stat (EN1149-1)
- Comfortable, highly breathable fabric
- Excellent particle filtration efficiency



SafeGard® SMMS Style Comparisons

Feature	SSG428B	SSG417B	SSG414B
Blue 45 gsm	•	•	•
CE Type 5/6 certified	•	•	•
Serged seam	•	•	•
Bulk packed 25/cs	•	•	•
Combination (dual) sizing	•	•	•
Configuration			
Respirator fit hood	•		•
Zipper front with storm flap	•	•	•
Elastic back	•	•	•
Elastic Wrists	•	•	•
Elastic Ankles	•	•	
Non-skid boots			•

SafeGard® SMMS 45gsm Type 5/6 Disposable Coveralls Fabric Tests

Test	Test Standard	Units	Test Results	CE Class	Imperial
Abrasion	EN530 method A	Cycles	>100<500	2	
Flex Cracking	ISO7854 method B	Cycles	>40K<100K	5	
Trapezoidal Tear	ISO9073-4	N	65.88md/41.79xd	4md/3xd	14.8md/9.4xd (lb)
Tensile Strength	ISO13934-1	N	92md/59xd	2md/1xd	20.7md/13.3xd (lb)
Puncture Resistance	EN863	N	8	1	1.8 (lb)
Seam Strength	ISO13935-2	N	92	3	20.7 (lb)
Anti-static Properties	EN1149-1	Ohms	<2.5*10 ⁹	PASS	
Penetration - Sulfuric Acid 30%	ISO6530	%	0	3	Max is 3
Penetration - Sodium Hydroxide 10%	ISO6530	%	0.5	3	Max is 3
Repellency – Sulfuric Acid 30%	ISO6530	%	95.8	3	Max is 3
Repellency – Sodium Hydroxide 10%	ISO6530	%	96.3	3	Max is 3

Type 5 and 6 Disposable Coveralls – Additional Testing

Test	Test Standard	Result	Units
Hydrostatic head	ISO811	49.1/19.3	CM/Inches
Particle filtration efficiency	IEST-RP-CC-003.3	>5 - 98.2%	µm

Type 5 and 6 Disposable Coveralls – Full Suit Tests

Test	Test Standard	Result
Type 6	EN13034	PASS
Type 5	ENISO13982-2	PASS
Radioactive Particulates	EN1073-2	PASS

SafeGard® Configurations**Coverall
SSG414B**

- Blue 45gsm
 - CE type 5/6 certified
 - Serged seam
 - Respirator fit hood
 - Zipper front with storm flap
 - Elastic back and wrists
 - Non-skid boots
- Bulk packed 25/cs
Dual sizing: SM/MD, LG/XL,
2X/3X, 4X/5X

**Coverall
SSG417B**

- Blue 45gsm
 - CE type 5/6 certified
 - Serged seam
 - Zipper front with storm flap
 - Elastic back, wrists and ankles
- Bulk packed 25/cs
Dual sizing: SM/MD, LG/XL,
2X/3X, 4X/5X

**Coverall
SSG428B**

- Blue 45gsm
 - CE type 5/6 certified
 - Serged seam
 - Respirator fit hood
 - Zipper front with storm flap
 - Elastic back, wrists and ankles
- Bulk packed 25/cs
Dual sizing: SM/MD, LG/XL,
2X/3X, 4X/5X



MicroMax® NS MNSG Applications

Automotive and aerospace
Paint booth operations
Abatement markets
Remediation
General maintenance applications
Infectious agents/biological hazards



Serged Seam

MicroMax® NS Global

Lightweight protection from dirt, grease, grime, and light chemical splash

MicroMax® NS Global Pattern Features:

- CE-certified Type 5/6 - great for multinational companies
- Chemical repellency and penetration (EN6530 and ASTM F903)
- Infectious agent/biological hazard protection (EN14126)
- Anti-Stat (EN1149-1)
- Four sizing options to simplify ordering and reduce inventory
- High Moisture Vapor Transmission Rate (MVTR)
- Protection from dry particulates and light liquid splash



Type 5 and 6 Disposable Coveralls – Full Suit Tests

Test	Test Standard	Result
Type 6	EN13034	PASS
Type 5	ENISO13982-2	PASS
Radioactive Particulates	EN1073-2	PASS

MicroMax® NS Global Style Comparisons

Feature	MNSG428	MNSG417	MNSG414
White 55 gsm	•	•	•
CE Type 5/6 certified	•	•	•
Serged seam	•	•	•
Bulk packed 25/cs	•	•	•
Combination (dual) sizing	•	•	•

Configuration

Respirator fit hood	•		•
Zipper front with storm flap	•	•	•
Elastic back	•	•	•
Elastic Wrists	•	•	•
Elastic Ankles	•	•	
Non-skid boots			•

MicroMax® NS 55gsm Microporous Film Type 5/6 Disposable Coveralls Fabric Tests

Test	Test Standard	Units	Test Results	CE Class	Imperial
Abrasion	EN530 method A	Cycles	>100<500	2	
Flex Cracking	ISO7854 method B	Cycles	>15K<40K	4	
Trapezoidal Tear	ISO9073-4	N	53.51md/30.98xd	3md/2xd	12.0md/7xd (lb)
Tensile Strength	ISO13934-1	N	82md/49xd	2md/1xd	18.4md/11xd (lb)
Puncture Resistance	EN863	N	9	1	2 (lb)
Seam Strength	ISO13935-2	N	89	3	20 (lb)
Anti-static Properties	EN1149-1	Ohms	<2.5*10^9	PASS	
Repellency – Sulfuric Acid 30%	ISO6530	%	97.1	3	Max is 3
Repellency – Sodium Hydroxide 10%	ISO6530	%	97.3	3	Max is 3
Repellency – Hydrochloric Acid 30%	ISO6530	%	97.4	3	Max is 3
Repellency – Butan-1-ol	ISO6530	%	98.2	3	Max is 3
Repellency – O-xylene	ISO6530	%	96	3	Max is 3
Repellency – N-heptane	ISO6530	%	88.7	2	Max is 3
Repellency – Isopropanol	ISO6530	%	92.6	3	Max is 3
Penetration - Sulfuric Acid 30%	ISO6530	%	0	3	Max is 3
Penetration - Sodium Hydroxide 10%	ISO6530	%	0	3	Max is 3
Penetration Hydrochloric acid 30%	ISO6530	%	0	3	Max is 3
Penetration - Butan-1-ol	ISO6530	%	0	3	Max is 3
Penetration - O-xylene	ISO6530	%	0	3	Max is 3
Penetration - N-heptane	ISO6530	%	0.2	3	Max is 3
Penetration – Isopropanol	ISO6530	%	0.1	3	Max is 3
Wet bacterial pen	EN14126 (ISO22610)		PASS	6	Max is 6
Biologically contaminated aerosols	EN14126 (ISO22611)		PASS	3	Max is 3
Protection against dry microbial contact	EN14126 (ISO22612)		PASS	3	Max is 3
Blood-borne pathogens	EN14126 (ISO16604)		PASS	6	Max is 6

ASTM F903 Testing

Test	Test Standard	Result	Units
Motor oil weight	ASTM F903	100 %	> 60 minutes
Bleach	ASTM F903	100%	> 60 minutes
Isocyanate based paint	ASTM F903	100 %	> 60 minutes
Round-Up	ASTM F903	100 %	> 60 minutes
Sodium Hydroxide	ASTM F903	50 %	> 60 minutes
Synthetic Blood Penetration	ASTM F1670	%	> 60 minutes
Viral Penetration Resistance	ASTM F1671	%	PASS

Type 5 and 6 Disposable Coveralls – Additional Testing

Test	Test Standard	Result	Units
Hydrostatic head	ISO811	168.6	CM
	AATCC TM127-2017	>15,000	Pa
	(2018)e	>150	CM
Particle Filtration Efficiency	ASTM F2299-17	>99% 0.1 – 0.12 µm	µm
MVTR	E96 Method D	54.97	g/m²/hour

**Coverall
MNSG414**

- white 55gsm
- CE type 5/6 certified
- Serged seam
- Respirator fit hood
- Zipper front with storm flap
- Elastic back and wrists
- Non-skid boots
- Bulk packed 25/cs**
Dual sizing: SM/MD, LG/XL, 2X/3X, 4X/5X

**Coverall
MNSG417**

- white 55gsm
- CE type 5/6 certified
- Serged seam
- Zipper front with storm flap
- Elastic back, wrists, and ankles
- Bulk packed 25/cs**
Dual sizing: SM/MD, LG/XL, 2X/3X, 4X/5X

**Coverall
MNSG428**

- white 55gsm
- CE type 5/ certified
- Serged seam
- Respirator fit hood
- Zipper front with storm flap
- Elastic back, wrists, and ankles
- Bulk packed 25/cs**
Dual sizing: SM/MD, LG/XL, 2X/3X, 4X/5X



MicroMax® NS MNSA Applications

- Contractor Operations
- Light Chemical Handling
- Automotive
- General Maintenance



Serged Seam

MicroMax® NS ANSI

Economical, lightweight protection from dirt, grease, grime, and light chemical splash

MicroMax® NS MNSA ANSI Pattern Coveralls:

- Serged seam
- Economical and lightweight
- Anti-Stat (EN1149-1)
- Available in individual sizes S-6X
- Meets ANSI 101-2014 minimum sizing and label requirements for limited use and disposable coveralls
- Comfortable, high MVTR fabric with excellent particle filtration efficiency

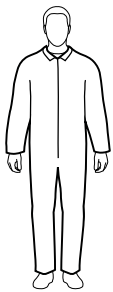
MicroMax® NS ANSI Pattern Coverall Features				
Feature	MNSA428	MNSA417	MNSA414	MNSA412
White 45gsm	•	•	•	•
Serged seam	•	•	•	•
Attached hood	•		•	
Zipper front	•	•	•	•
Elastic wrists	•	•	•	
Elastic ankles	•	•	•	
Non-skid boots			•	
Bulk packed 25/cs	•	•	•	•

MicroMax® NS 45gsm Microporous Film Fabric Tests

Test	Test Standard	Units	Test Results	CE Class	Imperial
Abrasion	EN530 Method A	Cycles	>10 <100	1	—
Flex Cracking	ISO7854 Method B	Cycles	>40K <100K	5	—
Tear Strength	ISO9073-4	N	40.51md/22.86xd	3 MD 2 XD	9.1md/5.1xd (lb)
Tensile Strength	ISO13934-1	N	75md/36xd	2 MD 1 XD	16.9md/8.1xd (lb)
Puncture Resistance	EN863	N	7	1	1.6 (lb)
Seam Strength	ISO13935-2	N	66	2	14.8 (lb)
Anti-static Properties	EN1149-1	Ohms	<2.5*10^9	PASS	—

Disposable Coveralls – Additional Testing

Test	Test Standard	Result	Units	Imperial
Hydrostatic Head	AATCC TM127-2017 (2018) e	>15,000	Pa	0.15 bar
		>150	CM	59 inches
Particle Filtration Efficiency	ASTM F2299-17	>99% 0.1 – 0.12 µm	µm	—
MVTR	E96 Method D	59.07	g/m²/hour	—

**Coverall
MNSA412**

- white 45gsm
- Serged seam
- Zippered front

Bulk packed 25/cs

Single sizing: SM-6X

**Coverall
MNSA414**

- white 45gsm
- Serged seam
- Zippered front
- Attached hood
- Elastic wrists
- Elastic ankles
- Non-skid boots

Bulk packed 25/cs

Single sizing: SM-6X

**Coverall
MNSA417**

- white 45gsm
- Serged seam
- Zippered front
- Elastic wrists
- Elastic ankles

Bulk packed 25/cs

Single sizing: SM-6X

**Coverall
MNSA428**

- white 45gsm
- Serged seam
- Zippered front
- Attached hood
- Elastic wrists
- Elastic ankles

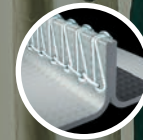
Bulk packed 25/cs

Single sizing: SM-6X



MicroMax® NS Cool Suit Applications

Paint Spray
Sandblasting/Abrasives
Power Washing



Serged Seam

MicroMax® NS Cool Suit

Breathable back panel maximizes comfort

MicroMax® NS Cool Suit Features:

- SMMS back panel increases breathability and provides a barrier to particulates and aerosol mist
- Elastic back waist provides improved comfort
- Front and sides material provides protection from dirt, liquids, and light chemical splash
- Storm flap over zipper protects against splashes

Attached hood fits perfectly around most respirators

Breathable back panel material keeps you cool

MicroMax® NS Cool Suit
is the perfect solution for
spray applications

Elastic cuffs on sleeves and ankles helps
seal out spray-over



MicroMax® NS Cool Suit Configurations



**Coverall
COL412**

- Zipper closure
- Sizes: S – 5X
- Case Pack: 25



**Coverall
COL428**

- Zipper closure
- Attached hood
- Elastic wrists
- Elastic ankles
- Sizes: S – 5X
- Case Pack: 25



MICROMAX® NS COOL SUIT – ALL IN ONE PROTECTION AND COMFORT

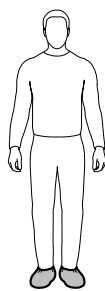
MicroMax® NS Cool Suit Fabric Physical Properties

Physical Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	55 gsm
Strip Tensile MD	ASTM D5035	lbs.	11.3 lbs.
Strip Tensile XD	ASTM D5035	lbs.	6 lbs.
Tensile Strength MD	ASTM D5034	lbs.	24.4 lbs.
Tensile Strength XD	ASTM D5034	lbs.	16.2 lbs.
Trap/Tear MD	ASTM D1117	lbs.	10.8 lbs.
Trap/Tear XD	ASTM D1117	lbs.	5.4 lbs.
Ball Burst	ASTM 3787	lbs.	25.1 lbs.
Taber Abrasion	ASTM 3884	cycles	1062 cycles
Mocon-Breathability			5031
Air Permeability	ASTM D737	cfm/ft2	<0.562
Surface Resistance	EN1149	Ω	Pass
Hydrostatic Resistance	ASTM 4157	cfm	127+
Flammability Pass		lbs.	16 cfr 1610 cii

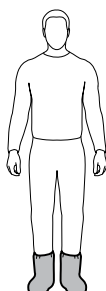
MicroMax® NS Cool Suit Fabric ASTM F903 Penetration Data

Chemical Tested	Concentration %	Test Time – Minutes	Test Results
Diazinon (Roundup)	100%	60	Pass
Motor Oil-40 wt.	100%	60	Pass
Bleach-household	100%	60	Pass
Isocyanate Based Paint	100%	60	Pass
Sodium Hydroxide	50%	60	Pass
Sodium Hypochlorite	10%	60	Pass
Blood	Challenge Fluid Liter – 3.20 x 108 (PFU/mL)	Assay Results PFU/mL <1	Pass

Additional MicroMax® NS Accessories



Shoe Cover
901NSP (non-skid)



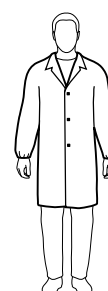
Boot Cover
903NSP (non-skid)



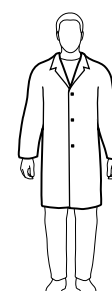
Shirt
CTL201



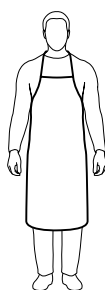
Pants
CTL301



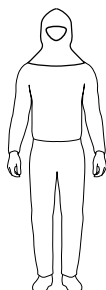
Lab Coat
CTL112
• Elastic wrists
• Snap closure



Lab Coat
CTL140
• Snap closure



Apron
CTL603



Hood
CTL713



Sleeves
CTL850P-18

MicroMax®

Added durability for the toughest environments

MicroMax® Applications

Dirt, Oil, and Grease

Hazardous Dry Particulate

Non-hazardous Liquids



Serged Seam

MicroMax® Features:

- Rip-stop nylon scrim adds strength and durability
- Liquid under pressure will not pass through fabric
- Ideal for Isocyanate paint
- Proven protection for pesticide spraying

MicroMax® Configurations



**Coverall
TG412**

- Zipper closure
- Sizes: S – 5X
Case Pack: 25



**Coverall
TG414**

- Zipper closure
 - Attached hood
 - Boots
 - Elastic wrists
- Sizes: S – 5X
Case Pack: 25



**Coverall
TG417**

- Zipper closure
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5X
Case Pack: 25



**Coverall
TG428**

- Zipper closure
 - Attached hood
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5X
Case Pack: 25

MicroMax® Fabric Physical Properties

Physical Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	59 gsm
Grab Tensile MD	ASTM D5034	lbs.	32.4 lbs.
Grab Tensile XD	ASTM D5034	lbs.	32.6 lbs.
Trapezoidal Tear MD	ASTM D5733	lbs.	5.1 lbs.
Trapezoidal Tear CD	ASTM D5733	lbs.	6.2 lbs.
Surface Resistance	EN1149	Ω	Pass

MicroMax® Fabric ASTM F903 Penetration Data

Chemical Tested	Concentration %	Test Time – Minutes	Test Results
Diazinon (Roundup)	100%	60	Pass
Motor Oil-40 wt.	100%	60	Pass
Bleach-household	100%	60	Pass
Isocyanate Based Paint	100%	60	Pass
Sodium Hydroxide	50%	60	Pass
Sodium Hypochlorite	10%	60	Pass
Blood	Challenge Fluid Liter – 3.20 x 108 (PFU/mL)	Assay Results PFU/mL <1	Pass

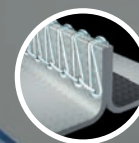


MicroMax® VP

Bloodborne Pathogen and Chemical Protection

MicroMax® VP Applications

Crime Scene Cleanup
Research Laboratories
Emergency Medical Response
Embalming / Forensics



Serged Seam

Passes ASTM F1670/F1671
Passes ASTM D6978 Fentanyl

MicroMax® VP is specifically designed to protect when the risk of blood, bodily fluids, and viral contaminants are the greatest. Ideal for use in crime labs, crime scene cleanup, and emergency response scenarios.

- Protective hood
- Seamless front reduces risk of contaminant exposure
- Taped storm flap protects zipper
- Elastic back for more comfortable fit
- Passes ASTM F1670/F1671 for Blood and Viral Protection

MicroMax® VP Fabric Physical Properties

Physical Property	Test Method	Units	Test Results
Material Thickness	ASTM D1777		15 mil
Material Weight	ASTM D3776		75 gsm
Tensile Strength MD	ASTM D5034	lbs.	36.30 lbs.
Tensile Strength CD	ASTM D5034	lbs.	24.15 lbs.
Elongation MD	ASTM D5034	%	59 Avg.
Elongation CD	ASTM D5034	%	71 Avg.
Water Vapor Transmission Rate	ASTM E96		16 g/sq. meter/ 24 hrs. avg.
Bursting Strength Hydraulic Method	ISO 13938-1		29.4 psi avg.
Burn Test 45°	CPSC16 CFR 1610		Pass
Surface Resistance Requirement for BS EN1149-5:2008 is $\leq 2.5 \times 10^9 \Omega$.	EN1149	Ω	Pass

MicroMax® VP Fabric Liquid Penetration Data

Physical Property	Test Method	Test Results
Liquid Penetration Using Synthetic Blood	ASTM F1670	Pass
Viral Penetration using ϕ X174 bacteriophage suspension	ASTM F1671	Pass

MicroMax® VP Fabric ASTM F903 Liquid Penetration Data

Physical Property	Test Method	Test Results
Methanol	ASTM F903	Pass
Ethyl Acetate	ASTM F903	Pass
Sulfuric Acid (97%)	ASTM F903	Pass
Tetrahydrofuran	ASTM F903	Pass
Sodium Hydroxide	ASTM F903	Pass
Acetone	ASTM F903	Pass
Hydrofluoric Acid	ASTM F903	Pass
Acetonitrile	ASTM F903	Pass

For Fentanyl Test Results using ASTM D6978 refer to page 10

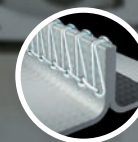
A full-page photograph of a male worker in a blue disposable FR suit, red hard hat, and safety glasses. He is holding a flashlight and inspecting a large, rusty industrial pipe. The suit has a circular logo on the chest that reads 'Lakeland Pyrolon 2'.

DISPOSABLE FR PROTECTION

Lightweight chemical and FR protection for applications where flash fire and hazardous dry particulates are present



Pyrolon® Plus 2 Applications
 Dirt, Oil, and Grease
 Hazardous Dry Particulates
 Flammable Environment



Sewn Seam

Pyrolon® Plus 2

Perfect for use over thermally protective and arc protective clothing

- Second generation Pyrolon® Plus 2 offers wet or dry strength superior to that provided by other traditional Flame Resistant disposables
- Meets the NFPA 2113 2020 edition requirements for section 5.1.10.
- ANSI/ISEA 203 Certified
- Pyrolon® Plus 2 is breathable, making this a cool and comfortable garment to wear.

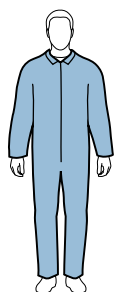
Pyrolon® Plus 2 can be used in work environments where hazardous or non-hazardous contaminants may be present.

Pyrolon® Plus 2 is certified to the ANSI/ISEA 203-2018 American National Standard for Secondary Single-Use Flame Resistant Protective Clothing for Use Over Primary Flame Resistant Protective Clothing.

Pyrolon® Plus 2 Fabric Physical Properties

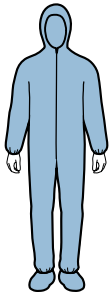
Physical Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	75 gsm
Grab Tensile MD	ASTM D5034	lbs.	31.0 lbs.
Grab Tensile XD	ASTM D5034	lbs.	20.0 lbs.
Trapezoidal Tear MD	ASTM D5733	lbs.	4.5 lbs.
Trapezoidal Tear CD	ASTM D5733	lbs.	5.6 lbs.
Air Permeability	ASTM D737	cfm	52 cfm
Char Length MD	ASTM D6413	inches	3.70 inches
Char Length XD	ASTM D6413	inches	3.70 inches
Ignition Point	—	degrees F	1000° F
Surface Resistance	EN1149	Ω	Pass

Pyrolon® Plus 2 Configurations



**Coverall
7412B**

- Zipper closure
- Sizes: S – 5X
Case Pack: 25



**Coverall
7414B**

- Zipper closure
 - Attached hood
 - Boots
 - Elastic wrists
- Sizes: S – 5X
Case Pack: 25



**Coverall
7417B**

- Zipper closure
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5X
Case Pack: 35



**Coverall
7428B**

- Zipper closure
 - Attached hood
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5X
Case Pack: 25



**Lab Coat
7101B**

- Snap closure
 - 2 pockets
 - Long sleeve
- Sizes: S – 5X
Case Pack: 30





Pyrolon® CRFR Applications

Petrochemical

Flammable Liquid Handling

Drug Lab Investigation

Heat Sealed
Seam

Pyrolon® CRFR

Chemical Resistance and Flame Resistance in
One Disposable Protective Garment

Pyrolon® CRFR Brand Features:

Combines Chemical Resistance with Flame Resistance

Does Not Melt or Drip

Meets the NFPA 2113 2020 Edition Requirements for
Section 5.1.10

Penetration Data for ASTM F903 Standard Chemicals

Pyrolon CRFR is the Chemical Resistant and Flame Resistant disposable option designed to protect your Primary FR and ARC Rated Garments when chemical splash is a concern. Pyrolon CRFR garments bar contaminating flammables like paint, oil and grease, hazardous liquids and contaminants, and dry particulates from penetrating to inner Primary Protective Garments, potentially saturating them with flammable substances.

Pyrolon CRFR is designed to be worn over Primary FR/AR Protective Clothing for environments where flash fire is a concern. Utilizing Pyrolon CRFR when both chemical splash and flash fire are a concern helps the wearer meet the NFPA 2113 2020 edition requirements for section 5.1.10.

Pyrolon® CRFR Coveralls



**Coverall
51130**

- Hood
- Storm flap over zipper
- Elastic face
- Elastic wrists and ankles

Sizes: M - 5X
Case Pack: 6



**Coverall
51150**

- Hood
- Storm flap over zipper
- Elastic face and wrists
- Attached boots

Sizes: M - 5X
Case Pack: 6



**Apron
51730**

- Long sleeve
- Elastic wrists
- 32" length

Sizes: L-4X
Case Pack: 12

Pyrolon® CRFR Helps Reduce Total Body Burn

Pyrolon® CRFR third party testing by North Carolina State University to ASTM F1930 confirms:

Material	Body Burn Results
6.5 oz. Westex® DH alone	16.4% total body burn
Pyrolon® CRFR over 6.5 oz. Westex® DH	15.84% total body burn

Pyrolon® CRFR Physical Properties, 2.5 Mil

Physical Property	Test Method	Units	Test Results
Basis Weight		gsm	150 gsm
Grab Tensile MD		lbs.	34
Grab Tensile XD		lbs.	27
Mullen Burst		lbs./sq.in.	35
Char Length MD		inches	4.7
Char Length XD		inches	4.5
Afterflame		seconds	<2
Charge Decay	NFPA 99		Pass
Surface Resistance	EN1149	Ω	Pass

Pyrolon® CRFR Penetration Data, 2.5 Mil, ASTM F903

Challenge Chemical	CAS Number	Physical State	Penetration Result
Acetone	67-64-1	Liquid	>60
Acetonitrile	75-05-8	Liquid	>60
Benzene	71-43-2	Liquid	>60
Carbon Disulfide	75-15-0	Liquid	>60
Diesel Fuel	N/A	Liquid	>60
Diethylamine	109-89-7	Liquid	>60
Crude Oil	N/A	Liquid	>60
Ethyl Acetate	141-78-6	Liquid	>60
n-Hexane	110-54-3	Liquid	>60
Hexamethylene Diisocyanate	822-06-0	Liquid	>60
Hydrochloric Acid	7647-01-0	Liquid	>60
Methanol	67-56-1	Liquid	>60
Methyl Ethyl Ketone (MEK)	78-93-3	Liquid	> 60
Methyl Isobutyl Ketone	108-10-1	Liquid	>60
Monochlorobenzene	108-90-7	Liquid	>60
n-Butyl Acetate	123-86-4	Liquid	>60
Orthodichlorobenzene, Grade F	95-50-1	Liquid	>60
Polychlorinated Biphenyl (PCB)	92-52-4	Liquid	> 60
Sodium Hydroxide, 50%	1310-73-2	Liquid	>60
Sulfuric Acid, 98%	7664-93-9	Liquid	45
Surrogate Gasoline (Toulene 50%) (Isooctane 50%)	108-88-3 540-84-1	Liquid	> 60
Tetrachloroethylene	127-18-4	Liquid	>60
Toluene	108-88-3	Liquid	>60
Trichlorobenzene Mixture	Mixture	Liquid	>60
Xylene	1330-20-7	Liquid	>60

Note: Chemical Resistance Data is in accordance with ASTM F903 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratories. All tests were performed under laboratory conditions and not actual use conditions.



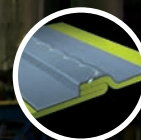
**Secondary
FR and
Chemical
Protective
Garment**

**Primary FR
Protective
Garment**



Pyrolon® CBFR Applications

Ammonia
Hydrofluoric Acid
Petrochemical



Heat Sealed Seam

Pyrolon® CBFR

Advanced Chemical Barrier and Flame Resistance for the Highest Chemical Hold-Out

Designed to be worn over primary FR protective clothing, Pyrolon CBFR offers advanced chemical protection and self-extinguishing FR protection where both chemical exposure and flash fire are a concern. The barrier of Pyrolon CBFR won't melt or drip and meets the NFPA 2113 2020 edition requirements for section 5.1.10.

PYROLON CBFR IS SUITABLE FOR APPLICATIONS IN ENVIRONMENTS WHERE AMMONIA, HYDROFLUORIC ACID, AND OTHER SERIOUS CHEMICALS ARE PRESENT, ALONG WITH THE POTENTIAL OF FLASH FIRE EXPOSURE.

Respirator fit hood

Tape sealed seams

Protective storm flap over zipper

Styles with and without attached boots

Secondary FR and Chemical Protective Garment

Primary FR Protective Garment



Pyrolon® CB-FR Physical Properties Physical Properties

Physical Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	230 gsm
Thickness	ASTM D1777	mils	12
Grab Tensile MD	ASTM D5034	lbs.	55.2 lbs.
Grab Tensile XD	ASTM D5034	lbs.	42.88 lbs.
Mullenburst	ASTM D3786	psi	32.5
Trapezoidal Tear MD	ASTM D5587	lbs.	16.28 lbs.
Trapezoidal Tear CD	ASTM D5587	lbs.	24.08 lbs.
Surface Resistance	EN1149	Ω	Pass

Pyrolon® CB-FR Permeation Testing - ASTM F1001

Chemical	CAS Number	Physical State	Concentration	ASTM F739	EN 369
Acetone	67-64-1	Liquid	99%	>480	>480
Acetonitrile	75-05-8	Liquid	99%	>480	>480
Acrylonitrile	107-13-1	Liquid	99%	>480	>480
Benzene	71-43-2	Liquid	99%	>480	>480
Carbon Disulfide	75-15-0	Liquid	99%	>480	>480
Crude Oil	Various	Liquid	Mixture	58	>480
Dichloromethane	75-09-2	Liquid	99%	>480	>480
Diesel Fuel	Various	Liquid	Mixture	>480	>480
Diethylamine (DEA)	109-89-7	Liquid	99%	130	309
Dimethylformamide (DMF)	68-12-2	Liquid	99%	>480	>480
Ethyl Acetate	141-78-6	Liquid	99%	>480	>480
Gasoline	Various	Liquid	Mixture	138	>480
Hydrofluoric Acid	7664-39-3	Liquid	48%	>480	>480
n-Hexane	110-54-3	Liquid	99%	>480	>480
Methanol	67-56-1	Liquid	99%	25	33
Nitrobenzene	98-95-3	Liquid	99%	>480	>480
Sodium Hydroxide, 50%	1310-73-2	Liquid	50%	>480	>480
Sulfuric Acid 93.1% 66°B	7664-93-9	Liquid	93%	>480	>480
Tetrachloroethylene (perc)	127-18-4	Liquid	99%	>480	>480
Tetrahydrofuran (THF)	109-99-9	Liquid	99%	13	21
Toluene	108-88-3	Liquid	99%	>480	>480
Gases					
Ammonia Anhydrous	7664-41-7	Gas	99%	>480	>480
1, 3-Butadiene inhibited 99%	106-99-0	Gas	99%	>480	>480
Chlorine 99.5%	7782-50-5	Gas	99%	>480	>480
Ethylene Oxide 99.7%	75-21-8	Gas	99%	>480	>480
Hydrogen Chloride 99%	7647-01-0	Gas	99%	182	>480
Methyl Chloride 99.5%	74-87-3	Gas	99%	>480	>480

Note: Chemical Resistance Data is in accordance with ASTM F739 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratories. All tests were performed under laboratory conditions and not actual use conditions.

Pyrolon® CB-FR Predicted Body Burn when worn over a Lakeland® 6.5 oz. Westex® DH FR Coverall (includes the head)

6.5 oz. Westex® DH coverall alone – 16.4% Total Body Burn

Burn	2nd Degree	3rd Degree	Average
Garment 1	0%	6.56%	6.56%
Garment 2	0.82%	6.56%	7.38%
Garment 3	2.46%	6.56%	9.02%
Overall Average			7.65%

**Pyrolon® CBFR Brand Features:**

Combines Advanced Chemical Barrier with Flame Resistance

Higher Chemical Hold-out Than CRFR

Chemical Permeation Data Available

Lower Predicted Body Burn when Paired with Lakeland's 6.5 oz. Westex® DH FR Coverall

ANSI/ISEA 203 for Secondary Single-Use Flame Resistant Protective Clothing for Use Over Primary Flame Resistant Protective Clothing

Pyrolon® CBFR Configurations

Coverall 52151

- Respirator-fit hood
 - Storm flap over zipper
 - Elastic face and wrists
 - Attached boots
- Sizes: S - 5XL
Case Pack: 6



Coverall 52132

- Respirator-fit hood
 - Storm flap over zipper
 - Elastic face, wrists and ankles
- Sizes: S - 5XL
Case Pack: 6



PermaSURE®

A mobile-friendly online tool that models permeation rates

Using Technology to
Determine Safe-Use Times
for Over 4,000 Chemicals

PermaSURE® is a mobile-friendly online tool that models permeation rates and provides safe-use times by incorporating environmental, temperature and chemical exposure factors. It is a state-of-the-art technology developed initially by leading Polymer chemists for defense forces to quickly determine which suits are needed for various chemical warfare agents and dual use chemicals. It is based on the known molecular characteristics and behavior of 4000+ chemicals interacting with Lakeland's specific chemical fabrics.

- Helps determine which suit is optimal for the various chemicals used.
- Easy input of suit type, exposure time, temperature and chemical.
- Provides calculation of how much the chemical has permeated.
- Calculates safe-use time and takes into account environmental temperature and the toxicity thresholds of specific chemicals.
- Alarm sounds on mobile device when safe use time limit is being approached.
- Provides instant basic chemical hazard data and single-click links to detailed online safety data sheets.
- Over 4000 chemicals in the database.
- Robust documentation capabilities.

Understanding "Breakthrough" in Permeation Testing: How Long Am I Safe?

"Breakthrough" in permeation test reports is often used to estimate a safe-use time, but according to the test standards, permeation testing is designed for fabric comparison only.



PermaSURE®



CHEMICAL PROTECTION

Lightweight protection to multi-barrier, advanced protection where chemical spray, splash, and other hazardous materials are present.

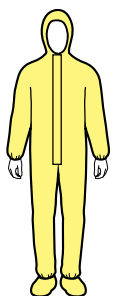
ChemMax® 1

Your First Level of Chemical Protection

ChemMax® 1 is constructed with a unique polyethylene barrier film and a continuous filament polypropylene nonwoven fabric. ChemMax® 1 garments bar many harmful contaminants from penetrating to inner clothing. Available with serged, bound, and sealed seams for scalability.

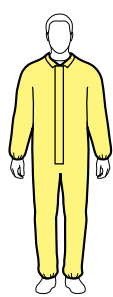
ChemMax® 1 provides economical, lightweight protection against most industrial acid and base chemicals. Bloodborne pathogen and viral protection make it a cost-effective option for waste water treatment facilities. ChemMax® 1 also meets the requirements of EN-1149 for Electrostatic Properties.

ChemMax® 1 Coveralls



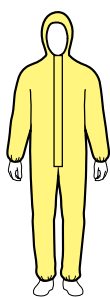
**Coverall
C1S414Y
Serged Seam
C1B414Y
Bound Seam**

- Zipper with storm flap
 - Attached hood
 - Attached boots
 - Elastic wrists
- Sizes: S – 5XL
Case Pack: 25



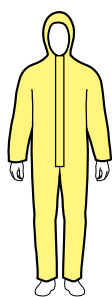
**Coverall
C1S417Y
Serged Seam
C1B417Y
Bound Seam**

- Zipper with storm flap
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5XL
Case Pack: 25



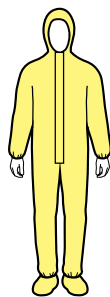
**Coverall
C1S428Y
Serged Seam
C1B428Y
Bound Seam**

- Zipper with storm flap
 - Attached hood
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5XL
Case Pack: 25



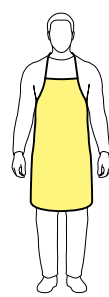
**Coverall
C1T130Y
Sealed Seam**

- Zipper with storm flap
 - Attached hood
 - Elastic face
 - Elastic wrists
 - Elastic ankles
- Sizes: S – 5XL
Case Pack: 6



**Coverall
C1T150Y
Sealed Seam**

- Zipper with storm flap
 - Attached hood
 - Elastic wrists
 - Attached boots
- Sizes: S – 5XL
Case Pack: 6



**Apron
C1S650Y**

• Sewn ties
Sizes: 28" x 36"
Case Pack: 100



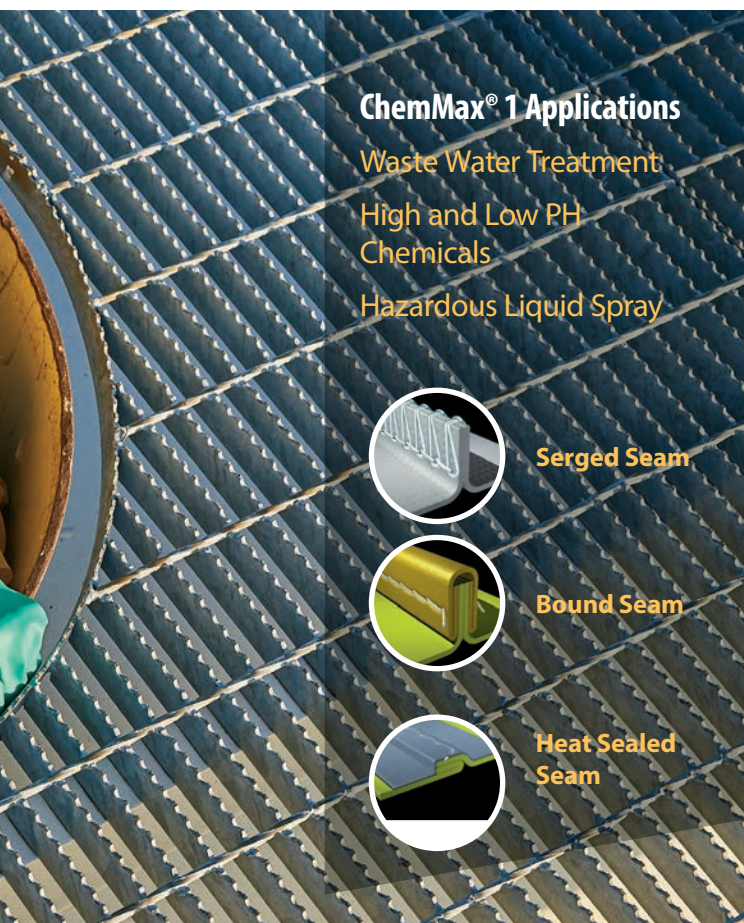
**Apron
C1B657Y**

• Long sleeves
• Waist ties
Sizes: 28" x 53"
Case Pack: 50



**Sleeve
C1S860YP**

• Elastic ends
Sizes: 18" length
Case Pack: 100 pair



ChemMax® 1 Applications

Waste Water Treatment

High and Low PH
Chemicals

Hazardous Liquid Spray

Serged Seam

Bound Seam

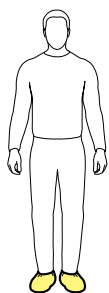
Heat Sealed
Seam

ChemMax® 1 Brand Features

Infectious Disease and Bloodborne Pathogen
tested (sealed seam configuration)

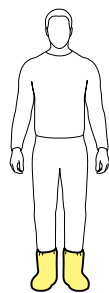
Excellent Protection for High and Low
PH Chemicals (Acids and Bases)

Passes ASTM D6978 Fentanyl



Shoe Cover
C1S901YP

- Elastic ankles
- Sizes: L/XL, 2X
- Case Pack: 200 pair



Boot Covers
C1S903YP

- Elastic top
- 17" high
- Sizes: LG/XL, 2X
- Case Pack: 200 pair

ChemMax® 1 Fabric Physical Properties

Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	87
Grab Tensile MD	ASTM D5034	pounds	35
Grab Tensile XD		pounds	27
Trapezoidal Tear MD	ASTM D5733	pounds	13.8
Trapezoidal Tear XD		pounds	14.2
Ball Burst	ASTM D751	pounds	25.5

Permeation Data for ASTM Recommended List of Chemicals for Evaluating Protective Clothing Materials (ASTM F1001)

Challenge Chemical	CAS Number	Physical State	Normalized Breakthrough
Acetone	67-64-1	Liquid	imm.
Acetonitrile	75-05-8	Liquid	>480
Ammonia Gas	7664-41-7	Gas	imm.
1,3-Butadiene Gas	106-99-0	Gas	imm.
Carbon Disulfide	75-15-0	Liquid	>480
Chlorine Gas	7782-50-5	Gas	imm.
Dichloromethane	75-09-2	Liquid	imm.
Diethylamine	109-89-7	Liquid	imm.
Dimethyl Formamide	68-12-2	Gas	imm.
Ethyl Acetate	141-78-6	Liquid	imm.
Ethylene Oxide Gas	75-21-8	Gas	>480
n-Hexane	110-54-3	Liquid	imm.
Hydrogen Chloride Gas	7647-01-0	Gas	imm.
Methanol	67-56-1	Liquid	imm.
Methyl Chloride Gas	74-87-3	Gas	imm.
Nitrobenzene	98-95-3	Liquid	45 minutes
Sodium Hydroxide 50%	1310-73-2	Liquid	>480
Sulfuric Acid, 96%	7664-93-9	Liquid	315 minutes
Tetrachloroethylene	127-18-4	Liquid	imm.
Tetrahydrofuran	109-99-9	Liquid	imm.
Toluene	108-88-3	Liquid	imm.

For Fentanyl Test Results using ASTM D6978 refer to page 10

ND = None Detected

> = greater than

L = liquid

G = gas

Numbers reported are averages of samples tested by the ASTM F739 test method. Sample results vary and therefore averages for these results are reported.

Warnings:

1. ChemMax® 1 is not flame resistant and should not be used around heat, flame sparks, or in potentially flammable or explosive environments.
2. Garments made of ChemMax® 1 should have slip resistant or anti-slip materials on the outer surface of boots, shoe covers or other garment surfaces in conditions where slipping could occur.

Note: Chemical Resistance Data is in accordance with ASTM F-739 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratory conditions and not actual use conditions.

ChemMax® 2

Quality, Value, Durability with the Proven Protection of Saranex® 23P Barrier Film

ChemMax® 2 is useful in protecting against hazardous chemicals and contaminants found in the work place and is a superior and economical chemical protective suit developed using the knowledge and expertise that you have come to expect from Lakeland®.

The unparalleled strength and softness features a Saranex® 23P film on two layers of a unique bi-component spunbond nonwoven substrate which provides protection for chemical mixing and handling, environmental clean-up, hazardous materials remediation and response, pharmaceutical manufacturing, spray painting and general industry.

ChemMax® 2 Configurations



Coverall C2B414 Bound Seam
• Zipper with storm flap
• Attached hood
• Attached boots
• Elastic wrists
Sizes: S – 5XL
Case Pack: 12



Coverall C2B417 Bound Seam
• Zipper with storm flap
• Elastic wrists
• Elastic ankles
Sizes: S – 5XL
Case Pack: 12



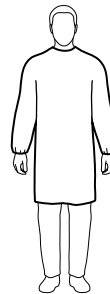
Coverall C2B428 Bound Seam
• Zipper with storm flap
• Attached hood
• Elastic wrists
• Elastic ankles
Sizes: S – 5XL
Case Pack: 12



Coverall C2T132 Sealed Seam
• Respirator fit hood
• Zipper with storm flap
• Elastic face
• Elastic wrists
• Elastic ankles
Sizes: S – 5XL
Case Pack: 6



Coverall C2T151 Sealed Seam
• Respirator fit hood
• Zipper with storm flap
• Attached hood
• Elastic wrists
• Attached boots
Sizes: S – 5XL
Case Pack: 6



Apron C2B657 Bound Seam
• Long sleeves
• Waist ties
Sizes: 28" x 53"
Case Pack: 50



Apron C2T730 Sealed Seam
• Long sleeves
• Elastic wrists
• Hook and loop straps at neck
• Material ties in back
Sizes: 28" x 53"
Case Pack: 12



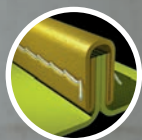
Boot Covers C2T740P Sealed Seam
• Elastic top
• 17" high (extends over calf
Sizes: S/M, LG/XL, 2X
Case Pack: 12 pair

ChemMax® 2 Applications

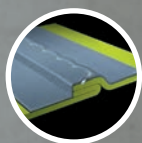
Chemical Mixing and
Handling

Environmental Cleanup

Hazardous Material
Remediation



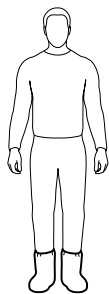
Bound Seam



**Heat Sealed
Seam**

ChemMax® 2 Brand Features

Moderate to high level chemical protection
Bound and sealed seam configurations



Boot Covers
C2B903P XL
Sealed Seam
· Elastic top
Sizes: 17" high
Case Pack: 100 pair



Sleeve
C2B850P-18
Bound Seam
· Elastic ends
Sizes: 18" length
Case Pack: 100 pair

ChemMax® 2 Fabric Physical Properties

Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	148
Grab Tensile MD	ASTM D5034	pounds	47
Grab Tensile XD		pounds	33.9
Trapezoidal Tear MD	ASTM D5733	pounds	29.95
Trapezoidal Tear XD		pounds	12.47
Ball Burst	ASTM D751	pounds	48
Surface Resistance	EN1149	Ω	Pass

Permeation Data for ASTM Recommended List of Chemicals for Evaluating Protective Clothing Materials (ASTM F1001)

Challenge Chemical	CAS Number	Physical State	Normalized Breakthrough
Acetone	67-64-1	Liquid	>480
Acetonitrile	75-05-8	Liquid	390
Ammonia Gas	7664-41-7	Gas	imm.
1,3-Butadiene Gas	106-99-0	Gas	>480
Carbon Disulfide	75-15-0	Liquid	imm.
Chlorine Gas	7782-50-5	Gas	>480
Dichloromethane	75-09-2	Liquid	imm.
Diethylamine	109-89-7	Liquid	165
Dimethyl Formamide	68-12-2	Gas	>480
Ethyl Acetate	141-78-6	Liquid	21
Ethylene Oxide Gas	75-21-8	Gas	>480
n-Hexane	110-54-3	Liquid	>480
Hydrogen Chloride Gas	7647-01-0	Gas	>410
Methanol	67-56-1	Liquid	>480
Methyl Chloride Gas	74-87-3	Gas	>480.
Nitrobenzene	98-95-3	Liquid	45
Sodium Hydroxide 50%	1310-73-2	Liquid	>480
Sulfuric Acid, 98%	7664-93-9	Liquid	>480
Tetrachloroethylene	127-18-4	Liquid	>480
Tetrahydrofuran	109-99-9	Liquid	imm.
Toluene	108-88-3	Liquid	imm.

ND = None Detected

> = greater than

L = liquid

G = gas

Numbers reported are averages of samples tested by the ASTM F739 test method. Sample results vary and therefore averages for these results are reported.

Warnings:

- ChemMax® 2 is not flame resistant and should not be used around heat, flame sparks, or in potentially flammable or explosive environments.
- Garments made of ChemMax® 2 should have slip resistant or anti-slip materials on the outer surface of boots, shoe covers or other garment surfaces in conditions where slipping could occur.

Note: Chemical Resistance Data is in accordance with ASTM F-739 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratory conditions and not actual use conditions.

ChemMax® 3

Advanced Chemical Protection for Industrial, Emergency Response, and Law Enforcement. Supported by PermaSURE®

ChemMax® 3 uses the latest technology to produce a superior chemical protective product. Durable and lightweight, ChemMax® 3 provides a barrier against a broad spectrum of toxic industrial chemicals, dual-use chemicals, chemical warfare agents and other harmful contaminants.

The multi-layer film is applied to a heavy polypropylene non-woven for increased strength and durability. The barrier film is significantly softer than other products on the market, resulting in a quiet, more comfortable garment.

ChemMax® 3 Coveralls



**Coverall
C3T132**

Sealed Seam

- Respirator-fit hood
- Zipper with storm flap
- Elastic face
- Elastic wrists
- Elastic ankles

Sizes: S – 5XL
Case Pack: 6



**Coverall
C3T151**

- Respirator-fit hood
- Storm flap over zipper
- Elastic face
- Elastic wrists
- Attached boots

Sizes: S – 5XL
Case Pack: 6



**Coverall
C3T165**

- Attached respirator-fit hood
- Double storm flap
- Hook and loop closure
- Elastic face and wrists
- Attached boots with boot flaps

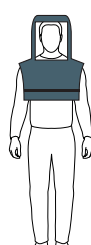
Sizes: S – 5XL
Case Pack: 6



**Encapsulated Suit
C3T450 – Level B**

- Rear entry
- Expanded back
- 48" zipper
- Double storm flap
- 20 mil Vinyl face shield
- Elastic wrists
- 2 exhaust ports/shroud
- Attached sock boots with boot flap
- Suit is not gas/vapor tight

Sizes: S – 5XL
Case Pack: 1



**Hood
Long Bib Style
C3T716**

- Long Bib Style
- 20 mil Vinyl lens
- 1" hook and loop side straps

Case Pack: 250



**Jacket
C3T250**

- Collar
- Elastic wrists
- Double storm flap
- Hook and loop closure

Sizes: S – 5XL
Case Pack: 6



**Bib with Suspenders
C3T320**

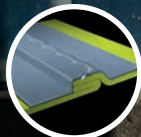
- Elastic waist
 - Elastic ankles
- Sizes: M-4X
Case Pack: 6

ChemMax® 3 Applications

Toxic Industrial Chemicals

Chemical Warfare Agents

Fentanyl Protection



Heat Sealed
Seam

ChemMax® 3 Brand Features

Excellent chemical barrier

Chemical warfare agent tested

Fabric is lighter weight and more flexible than
all major competitors



ChemMax® 3 Physical Properties

Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	160
Grab Tensile MD	ASTM D5034	pounds	58.7
Grab Tensile XD		pounds	42.2
Trapezoidal Tear MD	ASTM D5733	pounds	25.6
Trapezoidal Tear XD		pounds	19.8
Ball Burst	ASTM D751	pounds	54.5
Surface Resistance	EN1149	Ω	Pass

Permeation Data for ASTM Recommended List of Chemicals for Evaluating Protective Clothing Materials (ASTM F1001)

Challenge Chemical	CAS Number	Physical State	Normalized Breakthrough
Acetone	67-64-1	Liquid	>480
Acetonitrile	75-05-8	Liquid	160
Ammonia Gas	7664-41-7	Gas	>480
1,3-Butadiene Gas	106-99-0	Gas	>480
Carbon Disulfide	75-15-0	Liquid	178
Chlorine Gas	7782-50-5	Gas	>480
Dichloromethane	75-09-2	Liquid	>480
Diethylamine	109-89-7	Liquid	imm.
Dimethyl Formamide	68-12-2	Gas	>480
Ethyl Acetate	141-78-6	Liquid	>480
Ethylene Oxide Gas	75-21-8	Gas	>480
n-Hexane	110-54-3	Liquid	>480
Hydrogen Chloride Gas	7647-01-0	Gas	>480
Methanol	67-56-1	Liquid	180
Methyl Chloride Gas	74-87-3	Gas	>480.
Nitrobenzene	98-95-3	Liquid	45
Sodium Hydroxide, 50%	1310-73-2	Liquid	>480
Sulfuric Acid, 98%	7664-93-9	Liquid	>480
Tetrachloroethylene	127-18-4	Liquid	>480
Tetrahydrofuran	109-99-9	Liquid	320
Toluene	108-88-3	Liquid	>480

ND = None Detected

> = greater than

L = liquid

G = gas

Numbers reported are averages of samples tested by the ASTM F739 test method. Sample results do vary and therefore averages for these results are reported.

Warnings:

1. ChemMax® 3 is not flame resistant and should not be used around heat, flame sparks, or in potentially flammable or explosive environments.
2. Garments made of ChemMax® 3 should have slip resistant or anti-slip materials on the outer surface of boots, shoe covers or other garment surfaces in conditions where slipping could occur.

Note: Chemical Resistance Data is in accordance with ASTM F-739 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratory conditions and not actual use conditions.

Powered By **PermaSURE®**

ChemMax® 4 Plus

Superior, Advanced Chemical Protection.
Supported by PermaSURE®

ChemMax 4 Plus is the next generation of ChemMax® 4 fabrics and provides a new gateway to extensive chemical data like you've never had before. ChemMax 4 Plus is superior, advanced chemical protection, and is at the top-of-the-line for chemical protective clothing. Constructed with a 6-layer protective system, it will stand up to the toughest and most hazardous chemical environments.

ChemMax 4 Plus products offer heat sealed seams with a range of configurations including coveralls with respirator-fit hoods and encapsulated suits, all compatible with the PermaSURE® Toxicity Risk Modeller.

ChemMax® 4 Plus Configurations



**Level B Encapsulated Suit
C4T400Y**

- Rear entry
- Flat back
- 48" zipper
- Double storm flap
- 20 mil Vinyl face shield
- Elastic wrists
- 1 exhaust port with shroud
- Air tube inlet
- Attached sock boots with boot flap
- Suit is not gas/vapor tight

Sizes: M – 4XL
Case Pack: 3



**Level B Encapsulated Suit
C4T450Y – Yellow**

- Rear entry
- Expanded back
- 48" zipper
- Double storm flap
- 20 mil Vinyl face shield
- Elastic wrists
- 2 exhaust ports with shroud
- Air tube inlet
- Attached sock boots with boot flap
- Suit is not gas/vapor tight

Sizes: M – 4XL
Case Pack: 3



**Coverall
C4T165T – Tan**

- Attached respirator-fit hood
- Double storm flap
- Hook and loop closure
- Elastic face and wrists
- Attached boots with boot flaps

Sizes: S – 5X
Case Pack: 6



Hood Short Bib Style C4T714Y
• 20 mil Vinyl lens

Sizes: One Size
Case Pack: 6

Available Colors: Yellow and Tan





ChemMax® 4 Plus Applications

Hazardous Materials Response

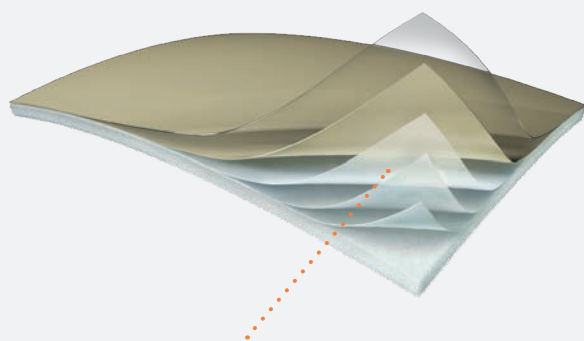
Toxic Industrial Chemicals
Petrochemical

Heat Sealed Seam

CHEMMAX 4 PLUS

Advanced Engineering for the Harshest Environments

ChemMax® 4 Plus has a chemical barrier that gives higher holdout times than our previous ChemMax® 4 material.



Lakeland's six-layer protective system stands up to the toughest and most hazardous chemical environments.

ChemMax® 4 Plus Physical Properties

Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	220
Grab Tensile MD	ASTM D5034	pounds	93.4
Grab Tensile XD		pounds	80.3
Trapezoidal Tear MD	ASTM D5733	pounds	24.4
Trapezoidal Tear XD		pounds	18.7
Ball Burst	ASTM D751	pounds	83
Surface Resistance	EN1149	Ω	Pass

ChemMax® 4 Plus Permeation Testing - ASTM F1001

Challenge Chemical	CAS Number	Physical State	Normalized Breakthrough
Acetone	67-64-1	Liquid	>480
Acetonitrile	75-05-8	Liquid	>480
Ammonia Gas	7664-41-7	Gas	>480
1,3-Butadiene Gas	106-99-0	Gas	>480
Carbon Disulfide	75-15-0	Liquid	>480
Chlorine Gas	7782-50-5	Gas	>480
Dichloromethane	75-09-2	Liquid	>480
Diethylamine	109-89-7	Liquid	>480
Dimethyl Formamide	68-12-2	Gas	>480
Ethyl Acetate	141-78-6	Liquid	>480
Ethylene Oxide Gas	75-21-8	Gas	>480
n-Hexane	110-54-3	Liquid	>480
Hydrogen Chloride Gas	7647-01-0	Gas	>480
Methanol	67-56-1	Liquid	>480
Methyl Chloride Gas	74-87-3	Gas	>480
Nitrobenzene	98-95-3	Liquid	>480
Sodium hydroxide, 50%	1310-73-2	Liquid	>480
Sulfuric Acid, 98%	7664-93-9	Liquid	>480
Tetrachloroethylene	127-18-4	Liquid	>480
Tetrahydrofuran	109-99-9	Liquid	>480
Toluene	108-88-3	Liquid	>480

ND = None Detected | > = greater than | L = liquid | G = gas

Numbers reported are averages of samples tested by the ASTM F739 test method. Sample results do vary and therefore averages for these results are reported.

Warnings:

1. ChemMax® 4 Plus is not flame resistant and should not be used around heat, flame sparks, or in potentially flammable or explosive environments.
2. Garments made of ChemMax® 4 Plus should have slip resistant or anti-slip materials on the outer surface of boots, shoe covers or other garment surfaces in conditions where slipping could occur.

Note: Chemical Resistance Data is in accordance with ASTM F-739 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratory conditions and not actual use conditions.



Interceptor® Plus is the apex of Lakeland® Industries' chemical protective clothing line. Available in both Level A encapsulating, as well as non-encapsulating configurations, there is an Interceptor® Plus style for your needs be it gas, vapor, aerosol, liquids, harmful contaminants or particulate protection.

This next generation of Interceptor® fabric is now compatible with the PermaSURE® Toxicity Risk Modeller, giving you access to the most comprehensive chemical database in the industry.

Interceptor® Plus Configurations



INT640B **INT640WB - Wide-View Face Shield**

Deluxe Vapor Encapsulating Suit

- Fully encapsulated
- Front-entry
- Storage bag included

Available in wide-view face shield configuration as INT640WB.

Sizes: S – 5X
Case Pack: 1



INT650B **INT650WB - Wide-View Face Shield**

Deluxe Vapor Encapsulating Suit

- Fully encapsulated
- Rear-entry
- Storage bag included

Available in wide-view face shield configuration as INT650WB.

Sizes: S – 5X
Case Pack: 1



INT620B

- Flat back front entry vapor-protective suit (Level A)
- Sealed seams on outside
- 48" zipper, double storm flap with hook and loop
- 2-layer faceshield(40 mil PVC faceshield)
- Butyl gloves
- 2 exhaust valves
- Attached sock boots with boot flaps
- 1.5" waist belt with 3 belt loops sewn (inside) and sealed
- Storage bag included

Sizes: S – 5X
Case Pack: 1



ICP640B

- CE Type 1a:EN 943
- Fully encapsulated
- Front-entry
- Expanded back, attached sock boots with boot flaps
- Double layer attached gloves
- Double-taped seams, inside and out
- Standard width visor for high chemical barrier
- Inside waist belt
- Storage bag included
- 2 rear mounted exhaust valves

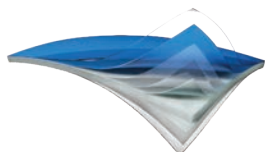
Sizes: S – 3X
Case Pack: 1

Interceptor® Plus Features

PTFE visor process permanently seals the visor into the suit with no sewing involved so that liquids can't penetrate the visor edge

PTFE outer layer on visor prevents impairment of vision due to chemical contact

Standard or wide-vision visor options



Soft and flexible 365 gsm multi-layer fabric

Attached gloves include non-reversing Silver Shield® inner glove with Butyl outer glove

Gas-tight zipper with front or rear entry options

Standard sock boots with boot flaps



Interceptor Training Suit INT491B (Rear Entry) INT497B (Front Entry)

Encapsulated front or rear entry expanded back training suit.

- 20 Mil Vinyl lens
- 48" non separator cloth zipper that zips from bottom to top
- Zipper is reinforced at top and bottom with webbing on the outer side
- Double storm flap
- Exhaust port on back right side of hood
- 1 exhaust port on left back side of body
- Sock boots
- Boot flaps sewn on
- Vinyl gloves sewn on
- Internal belt loops and assembled belt
- No hem on splash guard or dump valve covers.

Training Use Only! Case Pack: 1

Interceptor® Plus Physical Properties

Physical Property	Test Method	Units	Test Results
Basis Weight	ASTM D3776	gsm	370
Grab Tensile MD	ASTM D5034	lbs.	218.5 lbs.
Grab Tensile XD	ASTM D5034	lbs.	170.4 lbs.
Trapezoidal Tear MD	ASTM D5733	lbs.	34.7 lbs.
Trapezoidal Tear CD	ASTM D5733	lbs.	38.7 lbs.
Ball Burst	ASTM D3787	lbs.	250 lbs.

Interceptor® Plus Permeation Testing - ASTM F1001

Chemical Name	Physical Phase	Normalized Breakthrough Time (min.)	CAS No.
Acetone	L	>480	67-64-1
Acetonitrile	L	>480	75-05-8
Ammonia (gas)	G	>480	7664-41-7
1,3- Butadiene	G	>480	106-99-0
Carbon disulfide	L	>480	75-15-0
Chlorine gas	G	>480	7782-50-5
Dichloromethane	L	>480	75-09-2
Diethylamine	L	>480	109-89-7
N,N-Dimethylformamide	L	>480	68-12-2
Ethyl acetate	L	>480	141-78-6
Ethylene oxide	G	>480	75-21-8
n-Hexane	L	>480	110-54-3
Hydrogen chloride	G	>480	7647-01-0
Methanol	L	>480	67-56-1
Methyl chloride	G	>480	74-87-3
Nitrobenzene	L	>480	98-95-3
Sodium hydroxide, 50%	L	>480	1310-73-2
Sulfuric acid (conc.)	L	>480	7664-93-9
Tetrachloroethylene	L	>480	127-18-4
Tetrahydrofuran	L	>480	109-99-9
Toluene	L	>480	108-88-3

> = greater than, L = liquid, G = gas

Note: Chemical Resistance Data is in accordance with ASTM F-739 test method. Testing is performed on fabric samples only, not finished garments. Sources for all test data are independent laboratory conditions and not actual use conditions.

Level A gas tight totally encapsulating suit. Use with internal BA for protection against hazardous gases and vapors

- Multi-layer film technology creates light and flexible high barrier against a wide range of high hazard chemicals
- Weight 370 gsm
- Superior design featuring double-taped seams (inside and out)
- Standard or wide-vision visor options: two-layer visor with unique sealing technology for high chemical barrier
- Double layer chemical glove system
- European manufactured fabric tested against a full range of chemical warfare agents for anti-terror and civil defense operations
- Very soft and flexible material for enhanced comfort
- Front and rear entry design options
- Inner chemical glove with outer 27 mil butyl glove

CHEMICAL SUIT OPTIONS AND ACCESSORIES



Lakeland ChemMax® Push-Lock® Glove System

Quickly Install Or Remove Chemical Gloves On Lakeland ChemMax® or Interceptor® Plus Suits!

The Lakeland ChemMax® **Push-Lock® Glove System** is a simple method of attaching most types of chemical gloves to the garment sleeve through the use of two concentric rings. The system has been fully tested to a CE Type 3 Jet Test and is certified for use with all Lakeland ChemMax® and Interceptor® Plus chemical protective coveralls. Lakeland's Push-Lock® Glove System is reusable and may need decontamination before reuse.

Lakeland item number JFR2 contains one set of Push-Lock® rings, and will secure one pair of gloves to any Lakeland chemical protective coverall.



Lakeland Level A Test Kits

Maintain your Lakeland encapsulated suits with these easy-to-use test kits. Kits feature an easy-to-read Magnehelic pressure gauge, digital timer, sturdy brass and steel fittings, hoses and connectors in a waterproof case. Complete instructions included.

Part No. PTK220 – Lakeland test kit with self contained air compressor. Convertible to 220V and 110V.

Part No. PTK10 – Lakeland Level A Test Kit (air compressor not included)

Part No. PTK17 – Adapters for DuPont test kit to test Lakeland® suits.

Options for Chemical Suits

Part Number	Description
T-LEGBAND	Reflective triple trim 1.5" L/Y around legs
T-ARMBAND	Reflective triple trim 1.5" L/Y around arms
A1	Add 1 side air tube
G5	Seal-tight glove system
G6	North Silvershield® gloves heat sealed to suit
G12	Push-Fit glove system includes 2 inserts and 2 rings
GA	Glove O-ring and clamp assembly
I1	Inspect, retest, and re-certify Level A suit*
I2	Install customer supplied pass-thru
P1	Scott® pass-thru with Hanson® fittings (NFPA approved on ensembles)
P2	Scott® pass-thru with Schrader® fittings (NFPA approved on ensembles)
P3	Standard pass-thru (not NIOSH approved)
P6	Draegar pass-thru with Hanson® fittings (NFPA approved on ensembles)
P7	Draegar pass-thru with Foster® fittings (NFPA approved on ensembles)

**Recertification of Level A Suits - Suits must NEVER have been used in an incident, for training, or exposed to ANY contaminants. Contact Customer Service prior to return for authorization at 1-800-645-9291.*

Accessories for Interceptor Plus Level A Suits and ChemMax® Level B/C Suits

Part Number	Description	Part Number	Description
RM00389	Vinyl glove ring	V14	Exhaust valve
RM00391	Vinyl glove insert	PTK17	Adapter for DuPont test kit to pressure test Lakeland® Level A suits
RM00372	25 mil Butyl gloves	BG750	Level A storage bag
RM00375	17 mil Butyl Glove	CV55	Lakeland® Phase-Change Cooling Vest includes phase change inserts (One Size) Poly Cotton Outershell
RM00376	North Silvershield gloves	CV56	Lakeland® Phase-Change Cooling Vest includes phase change inserts (One Size) Banox Outershell
JFR2	Push-Fit glove system includes 2 inserts and 2 rings	CV58	Lakeland® Phase-Change Cooling Vest includes phase change inserts (One Size) Nomex® Outershell
45P	Onguard EZ Fit Hazmax® Boots Sized S-XL (NFPA Certified)	CV57	Lakeland® Phase change inserts - set of 4 replacement packs
46P	Tingley® Hazmat Boots Sized 7-13 (NFPA Certified)		
PTK10	Test kit for Level A suit		
PTK220	Universal Pressure test kit with blower (will test Lakeland®, DuPont & Kappler Level A suits)		

TRAINING SUITS

Encapsulated Nylon Training Suit

95494 (Rear Entry)

95493 (Front Entry)

Encapsulated Nylon Training Suit, expanded back, sewn seams, 20 mil Vinyl faceshield, single storm flap, butyl gloves, 2 exhaust ports, attached sock boots.

Training Use Only! Case Pack: 1



PHASE CHANGE COOL VEST

Wear a cool vest underneath a chemical protective suit to stay cool.



CV55



CV56



CV58



CV57 Replacement Inserts

Get Comfortable with a Phase Change Cool Vest® from Lakeland Industries

Working in HazMat/Protective suits can make anyone lose their cool. The Phase Change Cool Vests® worn under these suits give the user increased comfort. In fact, it creates a climate of 58° F. /14° C for up to three hours (depending on work environment).

How Do They Work?

These vests create a cooling energy from a unique Phase Change Material that is mechanically sealed in durable inserts. After freezing the inserts in ice water or a refrigerator for just 30 minutes, the vests deliver the constant cool temperature.

Unlike frozen water or gel products, our Phase Change Material maintains a consistent temperature of 58° F. /14° C during its transition from a solid to a liquid. This ensures that the wearer receives a constant cooling temperature throughout the entire two to three-hour period.

Safe and Effective

At Lakeland Industries, we are very concerned about the materials we use in our products. Our Phase Change Material is made of a proprietary blend of alkanes with unique thermal properties. The inserts are non-toxic and non-flammable and can be used over and over again. To achieve continuous cooling, additional insert sets are available so the user can rotate each set.

Comfort is Key

Designed for comfort, these vests are washable and lightweight. The built-in side and shoulder adjustments provide a better fit. To suit a variety of users, the vests come in many styles, sizes and fabrics, including polycotton and Nomex®.

If you want a safe and effective way to keep your workers cool, get the Phase Change Cool Vest®, available at Lakeland.

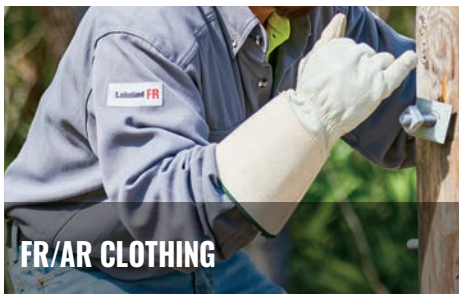
Style CV55 – Polycotton Cool Vest® with Phase Change inserts. **Case Pack:** 1

Style CV58 – Nomex® Cool Vest® with Phase Change inserts. **Case Pack:** 1

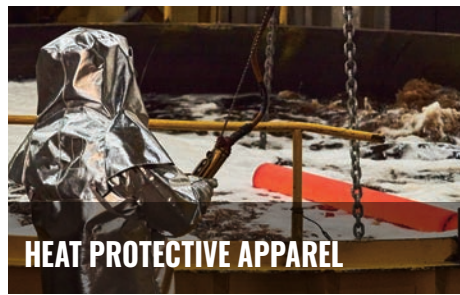
Style CV56 – Banox (FR Cotton) with Phase Change inserts. **Case Pack:** 1

Style CV57 – Set of 4 Cool Vest replacement inserts. **Case Pack:** 1

58° F / 14° C
for up to
90 minutes



FR/AR CLOTHING



HEAT PROTECTIVE APPAREL



FIREFIGHTER TURNOUT GEAR



DUAL CERTIFIED GEAR



FR/AR RAINWEAR



FR/AR HI-VISIBILITY



HAND AND ARM PROTECTION



WILDLAND GEAR



**WORKER SAFETY IS
OUR PRIORITY**

WORLD-CLASS SALES & SUPPORT

ALL AROUND THE GLOBE

At Lakeland Industries, our number one priority is creating safety apparel that protects your people from hazardous particulates, liquids and chemicals, bloodborne pathogens, diseases, and even fire and arc flash. Throughout the world, Lakeland products Protect Your People™.

Headquartered in Huntsville, Alabama and supported by a global team in over 18 countries around the world, you can trust our experience, expertise, and our proven track record of developing and delivering superior protective clothing.

Lakeland's customers worldwide have access to four decades of expertise in developing and supplying protective workwear to oil and gas, petrochemical, electric utilities, wind energy, healthcare, cleanroom, and other industries around the globe.

**LAKELAND'S
TEAM OF GLOBAL
EXPERTS IS READY
TO HELP YOU FIND
THE RIGHT SAFETY
APPAREL FOR YOUR
APPLICATION.**

GLOBAL MANUFACTURING & DESIGN

SUPPORTING A WORLDWIDE CUSTOMER NETWORK

Our products have established and maintained a global reputation for overall quality and are recognized as the industry's gold standard. We design and manufacture a wide variety of advanced protective clothing in our facilities around the world.

With locations in the United States, Mexico, China, Vietnam, and India, Lakeland is well positioned to source leading edge materials and produce superior garments to supply any region of the globe.

Lakeland's use of advanced technology doesn't stop with product development and

design. Our customers have access to a wide range of data and information to assist with proper product selection, calculate safe-use times, and even model the effects of environmental changes and how they influence chemical permeation rates.

We design, develop, manufacture, and deliver – all to **Protect Your People®**.

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