

# Pyrolon™ Plus 2















## Pyrolon® Plus 2 Style



Style Code: 428
Coverall with elasticated hood, cuffs waist and ankles

Sizes: S - XXXL

Available in: White

## Flame retardant Type 5 & 6 breathable coverall

- Pyrolon garments meet the requirements of EN 14116 (Index 1) for garment for protection against flames and heat.
- Fabric will not ignite, chars at low temperature and unlike standard disposables does not continue burning after the ignition source is withdrawn.
- Can safely be used over thermal protective garments without compromising thermal protection.
- Note that Pyrolon™ Plus 2 fabric will not ignite but is designed to wear OVER thermal protective garments and will not provide heat protection if worn alone.
- Intrinsic anti-static properties with very low surface resistance; anti-static does not wear off in use like standard disposables.
- Lakeland "Super-B" ergonomic styling unique combination of three design elements to optimise fit, durability and freedom of movement.
- Three piece hood for rounder head shape and greater comfort.
- Inset sleeves torso shaped to body to mazimise freedom of movement and negate the need for thumbloops.
- Two piece crotch gusset enhances freedom of movement and reduced crotch splitting.

| Physical Properties |          |                    |                |                   |                   |  |
|---------------------|----------|--------------------|----------------|-------------------|-------------------|--|
|                     |          | Pyrolon™<br>Plus 2 | Pyrolon™<br>XT | FR SMS<br>Brand A | FR SMS<br>Brand B |  |
| Property            | EN Std   | CE Class           | CE Class       | CE Class          | CE Class          |  |
| Abrasion Resistance | EN 530   | 3                  | 2              | 2                 | 1                 |  |
| Flex Cracking       | ISO 7854 | 6                  | 6              | 6                 | 5                 |  |
| Trapezoidal Tear    | ISO 9073 | 2                  | 4/3            | 2                 | 1                 |  |
| Tensile Strength    | EN 13934 | 2/1                | 3/2            | 1                 | 1                 |  |
| Puncture Resistance | EN 863   | 2                  | 2              | 1                 | 1                 |  |
| Burst Strength      | ISO 2960 | 3                  | 2              | n/a               | n/a               |  |
| Seam Strength       | ISO 5082 | 2                  | 3              | 3                 | 2                 |  |

| Chemical Repellency and Penetration EN 6530 |                         |    |             |    |                   |     |                   |     |
|---|-------------------------|----|-------------|----|-------------------|-----|-------------------|-----|
|   | Pyrolon™<br>Plus 2 Pyro |    | Pyrolon™ XT |    | FR SMS<br>Brand A |     | FR SMS<br>Brand B |     |
| Chemical                                    | R                       | Р  | R           | Р  | R                 | Р   | R                 | Р   |
| Sulphuric Acid 30%<br>CAS No. 67-64-1       | 2                       | 3  | 3           | 3  | 3                 | 3   | 3                 | 3   |
| Sodium Hydroxide<br>CAS No. 1310-73-2       | 3                       | 3  | 3           | 2  | 3                 | 3   | 3                 | 3   |
| O-Xylene<br>CAS No. 75-15-0                 | NT                      | NT | NT          | NT | n/a               | n/a | n/a               | n/a |
| Butanol<br>CAS No. 75-09-2                  | NT                      | NT | NT          | NT | n/a               | n/a | n/a               | n/a |

#### Note:-

Columns 3 and 4 contain comparative data for two commonly available FR SMS-based garment brands. The tests show that in most cases the Lakeland Pyrolon options feature superior properties.

However, whereas thermal mannequin testing to show predicted body burn when worn over a thermal protecting EN 11612 garment has been conducted on Pyrolon™, no such testing is available from the manufacturers of Brands A and B. Lakeland has conducted such testing for comparison purposes. The results are shown below:-

| Thermal Mannequin Testing   |       |                 |        |                    |                |  |  |
|-----------------------------|-------|-----------------|--------|--------------------|----------------|--|--|
|                             | FSPE  | Standard<br>SMS | FR SMS | Pyrolon™<br>Plus 2 | Pyrolon™<br>XT |  |  |
| Total % predicted body burn | 23.9% | 20.5%           | 19.6%  | 7.4%               | 8.2%           |  |  |
| 2nd degree burns            | 15.6% | 12.8%           | 14.7%  | 7.4%               | 8.2%           |  |  |
| 3rd degree burns            | 8.3%  | 7.7%            | 4.9%   | 0%                 | 0%             |  |  |

#### Note:-

- The predicted body burn performance shows little difference between FSPE, Standard SMS and FR SMS with total body burn being close to 20% and including 3rd degree body burns of 5 to 8%.
- The total predicted body burn for Pyrolon™ products is much lower at 7 to 8% with no 3rd degree burns apparent.
   This proves both that Pyrolon™ products show a superior FR performance when worn over EN 11612 protective garmend that the additional cost of FR SMS garments over Standard SMS garments results in very little improvement in FR



## **Super-B Style Design Features**

Image shows MicroMax® NS Cool Suit >>

### 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 as well as fitting a respirator mask rim more effectively.

#### 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 Lakeland garments require 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 taking stress away from the critical crotch area.





## 4. Chest Label

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



This image compares the body/arm shape of a Lakeland Super-B style coverall (in red) with a typical 'batwing' sleeve competitor coverall.

The Lakeland coverall shape follows the body, improving freedom of movement and reducing stress on crotch and sleeves.



The Lakeland Super-B style coverall features a unique combination of:

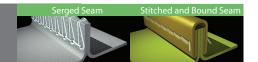
1) Three-piece hood 2) Inset sleeves 3) Diamond crotch gusset

This results in one of the best fitting, most wearable, most comfortable garments available ... and no need for uncomfortable thumb-loops!

Type 5 & 6 Seams

Lakeland's Type 5 & 6 coveralls feature either serged or stitched and bound seams.

See individual data sheets for details.



## Type 5 & 6 Suit Selection

Selection of an appropriate coverall is vital in optimising protection, comfort, durability and cost. Selection should be considered according to several factors.

- 1 Protection and fabric types
- CE Testing Physical
- 3. CE Testing Effectiveness of liquid protection
- Comfort and breathability
- 5 Design Features

Is protection or breathability paramount? Which fabric is most suitable?

Which physical properties are important to the environment or task? Select a garment that suits the task!

Where liquid penetration protection is required; which fabrics offer superior liquid protection? Microporous film laminates (MicroMax®, MicroMax® NS) feature the best liquid protection of Type 5 & 6 garments available.

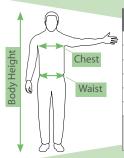
Where comfort is paramount; which fabric type offers the superior breathability & comfort? SMS-type fabric (SafeGard® GP, SafeGard® 76) feature the highest breathability of Type 5 & 6 fabrics available.

What design features might be important to the task and environment? Not all disposable coveralls are the same.

For more information request a copy of Lakeland's 'Guide to Type 5 & 6 Coverall Selection'

## **Garment Sizing**

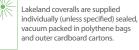
Lakeland garments are cut and sized generously and according to the Super-B style for maximum freedom.



|      | Body Height | Chest   | Waist   |
|------|-------------|---------|---------|
| Size | (cm)        | (cm)    | (cm)    |
| S    | 164-170     | 84-92   | 82-88   |
| M    | 170-176     | 92-100  | 88-94   |
| L    | 176-182     | 100-108 | 94-100  |
| XL   | 182-188     | 108-116 | 100-106 |
| XXL  | 189-194     | 116-124 | 106-112 |
| XXXL | 194-200     | 124-132 | 112-114 |

Selection of the appropriate sized garment is important in maximising comfort, protection and durability.

## Storage



As materials are unaffected by normal conditions garments can be stored in standard warehousing facilities. In general keep dry and avoid very warm temperatures or temperatures below -10°C.

Avoid direct sunlight or other strong light for extended periods.



#### Shelf-Life

With bags un-opened, properly stored in cool, dry conditions and away from sunlight or strong light, garments should achieve a shelf life of ten years or

more. Some discolouration may occur over time, especially in garments left in sunlight and in particular white fabric may gain a slight yellow 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 disposed of suitably.

Where anti-static properties are important however, anti-static treatments may erode in time and with wear.

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

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.

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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®.

\* 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.



W: www.lakeland.com

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