## Lakeland 🛿 Europe LAKELAND INDUSTRIES EUROPE LTD

## **Technical Data Sheet**

Summary		
Product	Micromax NS Overboot - anti-slip	
Description	Disposable overboot with anti-slip sole and ties (PB Type 6 applications).	
Fabric & weight	Microporous film laminate. 65 gsm. Foaming PU textured sole	
Style *(see overleaf)	EMN023NS	
Seam Type	3 thread over lock stitch	
Colour	White	

CE Certification		
EN Standard*	Description	Result
EN 340	Protective Clothing : general Requirements	Pass
EN 13034	Type 6: Protection against light spray of liquids	Partial Body
EN 13982	Type 5: protection against hazardous dry particles	N/A
EN 14605	Type 3 & 4: Protection against splashes and sprays of liquid chemicals	NT
EN 1073	Protection against dust particles that may be contaminated with radiations	N/A
EN14126	Protection against infectious agents	Pass (Fabric only)
EN 1149-5	Anti-static garment requirements: (ATEX regulations exclude certification for PPE: However, both ATEX and BGR 132 / TBRS2153 reference certification to EN 1149 as a suitable measure for protective clothing for explosive atmospheres.)	1.3 x 10 <sup>9</sup>

All Lakeland garments are certified to the latest version of standards where poss

Mechanical Properties			
EN Standard	Description	Result	EN Class
EN 13934	Tensile Strength	79.87/34 N	Class 2/1
EN 530	Abrasion Resistance	<100 Cycles	Class 1
EN 863	Puncture Resistance	6.2 N	Class 1
ISO 2960	Burst Strength	50.9 kPa	Class 1
ISO 7854	Flex Cracking	<40000 Cycles	Class 4
ISO 9073	Trapezoidal tear md/cd	28.1/19.4 N	Class 2/1
ISO 9073	Trapezoidal tear-mean	23.75 N	Class 2
EN 5082	Seam Strength	88.8 N	Class 3

#### Chemical Permeation – EN 5629 – For Types 1 to 4

The chemical list below is from EN 6529 Annex A2 and is intended to provide a broad spectrum of chemical types if general chemical suit assessment

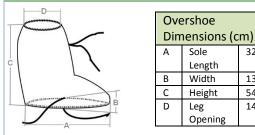
Chemical	CAS No	Result / EN Class
Acetone	67-64-1	N/A
Acetonitrile	70-05-8	N/A
Carbon Disulphide	75-05-8	N/A
Dichloromethane	75-09-2	N/A
Diethylamine	209-89-7	N/A
Ethyl Acetate	141-78-6	N/A
n-Hexane	110-54-3	N/A
Methanol	67-56-01	N/A
Sodium Hydroxide	1310-73-2	N/A
Sulphuric Acid (96%)	7664-93-9	N/A
Tetrahydrafuran	109-99-9	N/A
Toluene	108-88-3	N/A

Breakthrough times are a reflection controlled lab tests measuring "Normalised Breakthrough" as the time to reach a *permeation rate* of  $1.0 \mu g/min/cm^2$ . This does not imply "no breakthrough" and is not intended to indicate any duration of "safe-use" in any specific application. It is always the users' final responsibility to ensure a garment is suitable for the application.



Chemical Repellency – EN 368 (for Type 6)		
Chemical	EN Class	
	Repellency	Penetration
Sulphuric Acid 30%	Class 3	Class 3
Sodium Hydroxide 10%	Class 3	Class 3
O-Xylene	Class 2	Class 3
Butan-1-ol	Class 2	Class 3

#### **Design and Size**



## Suggested applications

- Paint- spray applications
- Protection from contamination of the process by the user
- Low-level insecticide / pesticide spraying
- Wet applications in GRP manufacture
- Boat building
- Wind blade manufacture
- Pharmaceutical manufacture
- General maintenance and cleaning applications
- Scene of Crime Operations

For further information see www.lakeland.com/europe or contact sales-europe@lakeland.com No Information provided is intended to guarantee product suitability for any specific application: It is always the users final responsibility to ensure garment suitability Lakeland Industries Europe Ltd, Unit 2, Jet Park II, Newport, East Yorkshire, UK HU15 2RP UK Company Registration No: 4500660: For financial information see www.lakeland.com/financial



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14-15

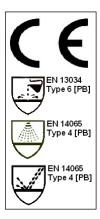


# **Technical Data Sheet**

## **Other Information**

### Partial Body Protection – (eg Type 6 [PB] / Type 3 [PB] / Type 4 [PB])

Lakeland accessories such as overshoes and overboots, jackets, pants, aprons and smocks are certified to the relevant CE Type as "Partial Body Protection"



Partial Body accessories will protect only the parts of the body they cover. They are not suitable for heavier or larger splashes and sprays of liquids where the whole or large areas of the user may be contaminated. In some cases partial body garments should be used only in conjunction with other garments and it may be appropriate to seal joins between the various PPE by taping.

However, note that partial body accessories are only suitable for liquid protection types (Types 6, 4 and 3) and not for any dust protective types such as Type 5 (EN 13982) or protection against radiation contaminated dust (EN 1073). Whereas liquid hazards tend to be directional so can be prevented from contact with a part of the body using accessories, dust particles tend to float freely in the atmosphere and move with air currents. Thus partial body garments cannot be certified as Type 5 or EN 1073.

Partial Body certified garments are indicated on the label by the relevant Type Pictogram and standard and with the addendum [PB] in brackets after the relevant type as shown on the left.

Note that in some cases items such as overshoes, overboots or sleeves may not be certified as these are often designed to protect the process or environment from contamination by the wearer, rather than to protect the wearer from hazards in the environment, in which case they are not classed as PPE.

#### **Overshoe / Overboot sole options**

Lakeland overshoes and overboots are available with three sole types:-



Sole is same material as upper



Sole is Magnolia textured anti-slip foaming Polyurethane



texturedSole is a grey anti-mingslip & anti-staticanesynthetic composite

#### Sizing

Larger accessories such as jackets, pants etc come in a normal range of sizes according to the chart below.

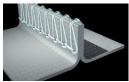
Smaller accessories such as overshoes, overboots and sleeves come in one or two sizes. Contact Lakeland for more information



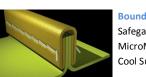
Size	Body Height	Chest
S	164-170cm	84-92cm
м	170-176cm	92-100cm
L	176-182cm	100-108cm
XL	182-188cm	108-116cm
XXL	189-194cm	116-124cm
XXXL	194-200cm	124-132cm

#### Seams

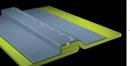
Lakeland garments use 3 types of seams:-



Serged or Stitched Safegard GP MicroMAX NS



Safegard 76 / Diamant MicroMAX Cool Suit



Stitched & Taped MicroMAX TS TomteX ChemMAX

## Storage, Shelf-life and Disposal

#### Storage

Lakeland garments can be stored in normal storage areas and require no special condition. Keep in cool, dry areas where possible and away from direct heat and sunlight

#### Shelf-Life

Lakeland coveralls are primarily manufactured from inert polymers (usually polypropylene and/ or polyethylene which should normally degrade over longer periods in excess of 10 years. Garments are supplied in sealed bags and so a shelf life of ten years or more should be reasonable under normal conditions. However, we recommend that after 5 years Type 3 and 4 chemical suits should be disposed of and replaced or used for training only. Some discoloration of especially white fabrics may occur over time though this will not affect performance. In any circumstances it is the users' responsibility to check garments for damage tears or wear before use

#### Disposal

Polymers used in Lakeland garments are generally inert, non-harmful and non-toxic and can be disposed of by incineration or to landfill according to local regulations. However, any garments contaminated with chemicals must be disposed of according to the requirements of the chemical or cleaned before disposal



For further information see www.lakeland.com/europe or contact <u>sales-europe@lakeland.com</u> No Information provided is intended to guarantee product suitability for any specific application: It is always the users final responsibility to ensure garment suitability Lakeland Industries Europe Ltd, Unit 2, Jet Park II, Newport, East Yorkshire, UK HU15 2RP UK Company Registration No: 4500660: For financial information see www.lakeland.com/financial

