

MICROGARD® 2500



Applications

- Viral contaminated areas (including Avian Influenza)
- Biological protection
- Emergency medical response
- Medical research
- Chemical and pharmaceutical industries
- Low pressure industrial cleaning
- Industrial paint spraying
- Nuclear industry

MICROGARD® 2500 is a unique material offering exceptional mechanical strength, liquid and particulate protection.

Features & Benefits

Protection - Achieves the highest classifications for protection from biological agents, in accordance with EN 14126:2003 and ASTM F 1671 for penetration of blood, body fluids and blood borne pathogens

Comfort - Moisture vapour permeable ('breathable') to help reduce the risk of heat stress

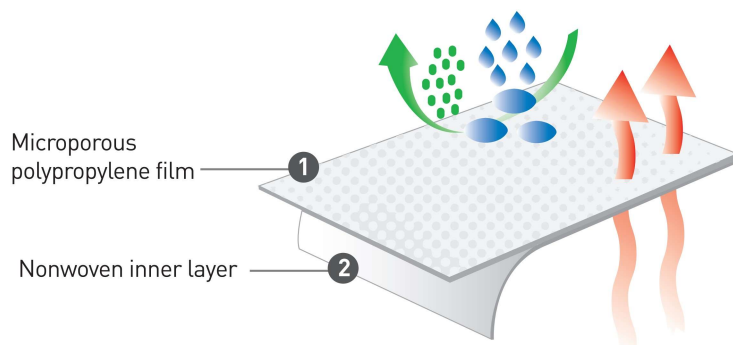
Anti-static - Tested according to EN 1149-1

Low linting - Reduced risk of contamination in critical areas



MICROGARD® 2500

MICROGARD® 2500 is a durable microporous polypropylene laminate which provides an excellent barrier to chemical spray and infective agents. This specialist fabric is also breathable to help ensure user comfort. The fabric's physical strength and flexibility ensures protection and comfort even in the harshest environments.

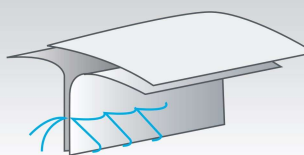


Protection Levels & Additional Properties



Stitched & Taped Seams

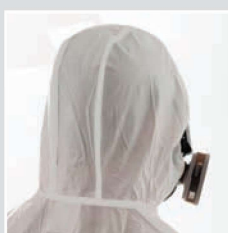
Increased strength and an effective liquid & particle barrier



Innovative Design Features



Finger loops to prevent sleeve movement when working above your head



Hoods designed for optimum fit with respirators, particularly full face masks

MICROGARD® 2500 Range Overview

MICROGARD® 2500 PLUS

Low concentrated liquid chemical repellence, particle protection and barrier to biological agents.



▲ MICROGARD® 2500 PLUS

MICROGARD® 2500 PLUS PAPR

Encapsulated suit for use in conjunction with Sundström SR500 / SR500EX PAPR fan unit & filters.



▲ MICROGARD® 2500 PLUS PAPR - See page 29

Specialist Approvals

MICROGARD® 2500 has passed a range of specialist testing methods including:



Biological Agents

EN14126 : 2003

See page 9

Technical Support

Technical datasheets & product flyers available to download at:

www.microgard.com or by emailing technical@microgard.com



MICROGARD® 2500

MICROGARD® 2500 Technical Data

MICROGARD® 2500 is extensively tested in accordance with statutory requirements, including physical performance attributes and barrier to hazardous substances. The following tables outline the results obtained in independent laboratories according to European test methods.

Test Method	Result	EN Class (EN 14325)
EN 530 Abrasion	100 cycles	2 of 6
EN ISO 7854 Flex Cracking	40,000 cycles	5 of 6
EN ISO 9073-4 Tear Resistance (Machine Direction)	43.1N	2 of 6
EN ISO 9073-4 Tear Resistance (Cross Direction)	35.7N	
EN ISO 13934-1 Tensile Strength (Machine Direction)	122.8N	3 of 6
EN ISO 13934-1 Tensile Strength (Cross Direction)	113.5N	
EN 863 Puncture Resistance	15.23N	2 of 6
EN ISO 13938-1 Burst Resistance	110.7kPa	2 of 6
EN 13274-4 Resistance to ignition	Pass	-
EN 1149-1 Electrostatic Properties (Surface Resistance)	<2.5 x 10 ⁹	-
ISO 13935-2 Seam Strength	185.5N	4 of 6

MICROGARD® 2500 has been tested against numerous chemicals. For further information on permeation testing and a more extensive list of chemicals see page 55 onwards.

EN ISO 6529 Chemical Permeation Test Results			
Chemical Name	CAS Number	BT at 1.0µg/cm ² /min	EN Class (EN 14325)
Sodium Hydroxide (aq.50 wt%)	13-10-73-2	>480	6 of 6
Sulphuric Acid (95-96 wt%)	7664-93-9	>480	6 of 6

The following table sets out MICROGARD® 2500 performance for resistance to chemical penetration in accordance with EN ISO 6530. For further information on penetration testing see page 55.

Fabric Repellence & Penetration - Resistance to Liquid Chemicals	Result (%)	EN Class
Repellence of Liquids - 30% Sulphuric Acid	99.9	3 of 3
Repellence of Liquids - 10% Sodium Hydroxide	96.3	3 of 3
Repellence of Liquids - n-heptane (undiluted)	87.2	1 of 3
Repellence of Liquids - Isopropanol	91.7	2 of 3
Resistance to penetration by liquids - 30% Sulphuric Acid	0.0	3 of 3
Resistance to penetration by liquids - 10% Sodium Hydroxide	0.0	3 of 3
Resistance to penetration by liquids - n-heptane (undiluted)	0.0	3 of 3
Resistance to penetration by liquids - Isopropanol	0.0	3 of 3

MICROGARD® 2500 when tested in accordance with EN 14126: 2003 demonstrates an excellent barrier to infective agents. The specific test results are detailed in the table below and for further information on this European Norm see page 7.

EN14126 Fabric Barrier to Infective Agents	Result	EN Class
ISO 16603 Resistance to penetration by blood/fluids under pressure	Pass to 20kPa	Class 6 of 6
ISO 16604 Resistance to penetration by blood borne pathogens	Pass to 20kPa	Class 6 of 6
EN ISO 22610 Resistance to wet bacterial penetration (mechanical contact)	No penetration (up to 75 mins)	Class 6 of 6
ISO/DIS 22611 Resistance to biologically contaminated aerosols	No penetration	Class 3 of 3
ISO 22612 Resistance to dry microbial penetration	No penetration	Class 3 of 3

MICROGARD® 2500 products have been extensively tested according to European and International requirements, including ASTM, for both physical and barrier performance. More details can be found on our website www.microgard.com

MICROGARD® 2500 PLUS Coverall Models

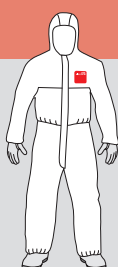
Model 111

Suit Features

- 3 piece hood
- Elasticated hood, wrist, waist and ankles
- 2-way front zip with resealable storm flap
- Finger loops

Sizes: S-3XL

Colour: White



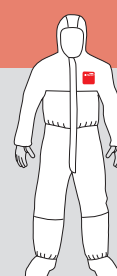
Model 122

Suit Features

- 3 piece hood
- Elasticated hood, wrists and waist
- 2-way front zipper with re-sealable storm flap
- Finger loops
- Integrated socks with boot overflap

Sizes: S-3XL

Colour: White



MICROGARD® 2500 PLUS AIRline



Air-supplied suits for protection from hazardous particulate contamination.

MICROGARD® 2500 PLUS AIRline is a range of one-piece suits designed for use in combination with belt mounted, continuous flow airline regulators such as the Sundström SR507* (sold separately). With breathable air supplied from an external compressed air source, the positive pressure generated within the suit provides the wearer with protection from hazardous particulates.

MICROGARD® 2500 PLUS AIRline

Protection Levels & Additional Properties



EN 1073-1

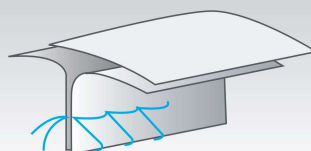


EN 1149-5

CE marked to EN 1073-1: 1998 with a nominal protection factor of 50,000 (Class 5 of 5)

Stitched & Taped Seams

Increased strength and an effective liquid & particle barrier



Model 750

Features & Benefits

- **Double elasticated cuffs** - Enables a liquid tight connection with chemical protective gloves (additional taping or Glove Link is required)
- **Air permeable SMS collar** - Maintains sufficient air in the breathing zone whilst allowing excess air to flow into the body of the suit
- **Four exhalation valves** - Exhalation valves fitted to the rear of the suit allows CO₂ to escape and equalises pressure within the suit, allowing a full range of movement without risk of excessive pressure causing harm to the suit or the wearer
- **Attached socks with elasticated boot over-flap** - Socks are designed to be worn inside chemical protective boots with the leg over-flap worn outside to reduce the potential for chemical ingress
- **Panoramic visor design** - Ensures a good field of vision for the wearer
- **Emergency rip cord** - Permits rapid doffing of the suit in cases of emergency or undue distress to the wearer

Model 752

- **Attached sock boots with anti-slip PVC sole** - designed to allow soft or protective safety shoes to be worn inside and offer limited resistance to slip.

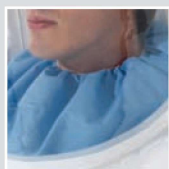
Sizes: S-3XL

Colour: White



Model 752

Attached sock boot with anti-slip PVC sole



Panoramic visor with air permeable collar



Airline pass-thru



Applications

- Protection from radioactive particulate contamination*
- Particulate protection (including APIs – Active Pharmaceutical Ingredients)

* Gives no protection against radioactive radiation

Sundström



For use in combination with airline regulators such as the SR507* (Sold separately)



* Sundström SR507 airline regulator unit and SR540 breathing hose used as part of the EC-Type Examination process. For advice on the suitability of other airline regulator systems please contact the Microgard technical team on +44 (0) 1482 625444 or email technical@microgard.com

MICROGARD® 2500 PLUS PAPR

MICROGARD®
2500
PLUS PAPR

Providing complete protection from liquid and particulate hazards!

MICROGARD® 2500 PLUS PAPR (powered air purifying respirator) is a fully encapsulated liquid tight chemical suit. Model 700 is designed for use in combination with Sundström SR500 / SR500EX PAPR fan unit & filters and Model 701 for use with Scott Proflow SC / EX fan units and filters (sold separately).

MICROGARD® 2500 PLUS PAPR Coverall

Protection Levels & Additional Properties



TYPE 3-B



TYPE 4-B



TYPE 5-B



EN 1073-2



EN 1149-1



EN 14126



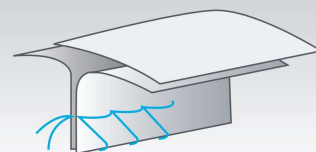
EN 12941

Respiratory Protective Device, approved to EN 12941 TH3 with an Assigned Protection Factor (APF) of 40*

*UK APF according to Annex C of EN529:2005. The APF means the factor by which the hazard is reduced, i.e. how many times cleaner the air is inside the hood than outside

Stitched & Taped Seams

Increased strength and an effective liquid & particle barrier



Applications

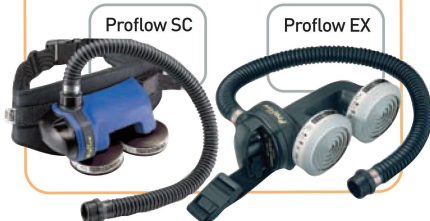
- Particulate protection (including API - Active Pharmaceutical Ingredients)
- Resistance to penetration of low hazard chemicals
- Biological agents (Risk groups 1 & 2)
- Protection from radioactive particulate contamination**

**Gives no protection against radioactive radiation

Sundström



SCOTT SAFETY



Model 700 (Sundström) and Model 701 (Scott Proflow)

Features & Benefits

- **Double elasticated cuffs** - Enables a liquid tight connection with chemical protective gloves (additional taping or Glove Link is required)
- **Air permeable SMS collar** - Maintains sufficient air in the breathing zone whilst allowing excess air to flow into the body of the suit
- **Four exhalation valves** - Exhalation valves fitted to the rear of the suit allows CO₂ to escape and equalises pressure within the suit, allowing a full range of movement without risk of excessive pressure causing harm to the suit or the wearer
- **Attached socks with elasticated boot over-flap** - Socks are designed to be worn inside chemical protective boots with the leg over-flap worn outside to reduce the potential for chemical ingress
- **Panoramic visor design** - Ensures a good field of vision for the wearer
- **Emergency rip cord** - Permits rapid doffing of the suit in cases of emergency or undue distress to the wearer

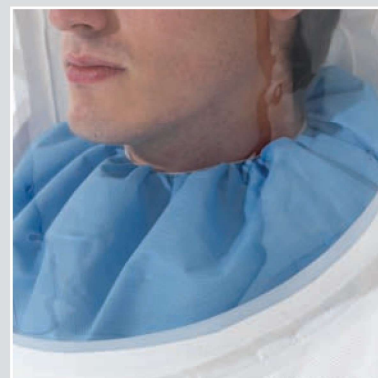
Sizes: S-3XL
Colour: White



Attached sock with boot overflap



Glove Link (sold separately) attached nitrile gloves



Panoramic visor and air permeable collar

Specialist Approval



Biological Agents
EN14126 : 2003
See page 9

Also available
in the PAPR
range...



*Please note: Scott and Sundström fan units, breathing hoses and filters sold separately. For advice please contact your distributor.

MICROGARD® 2500 Accessories

MICROGARD®
2500

MICROGARD® 2500 Accessories

Model 203



Lab Coat

- Collar
- Stud front fastening
- Left breast pocket
- Lower right pocket
- Bound seams

Sizes: S-3XL

Colour: White

Model 406



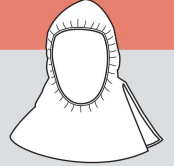
Overboots

- Elastic to top of boot
- Tie fastening
- Bound seams

Size: One Size (fits size 42-46)

Colour: White

Model 503



Cape Hood

- Balaclava Style
- Elasticated face opening
- Bound seams

Size: One Size

Colour: White

Model 213



Apron

- Tie fastening to waist
- 100cm long tie fastening

Size: One Size

Colour: White

Model 407



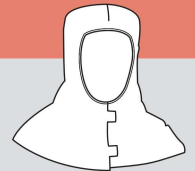
Overboots

- Elasticated opening
- PVC anti-slip sole
- Adjustable Shoe Tie
- Bound seams

Size: 42-46

Colour: White

Model 507



Cape Hood

- Balaclava Style cape hood covering part of shoulders
- Velcro fastening to front
- Bound seams

Size: One Size

Colour: White

Model 400



Overshoes

- Elasticated opening
- Bound seams

Size: One Size (fits size 42-46)

Colour: White

Model 409



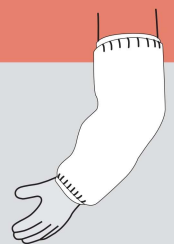
SOCCO Overboots

- Elastic to top of boot
- Tie fastening
- Blue binding to seams
- Reinforced Surestep non-slip soles
- Adjustable shoe tie

Size: One Size (fits size 42-46)

Colour: White

Model 600



Oversleeves

- Elasticated at both ends
- Bound seams

Size: One Size

Colour: White

For more information on our range of accessories, or if you can't see the accessory you are looking for, please contact Microgard Limited customer services Tel: **+44 (0) 1482 625444**, email **sales@microgard.com** or visit **www.microgard.com**