



Range Overview  
**MICROGARD® 2000**

**MICROGARD®**  
**2000**

# MICROGARD® 2000 STANDARD

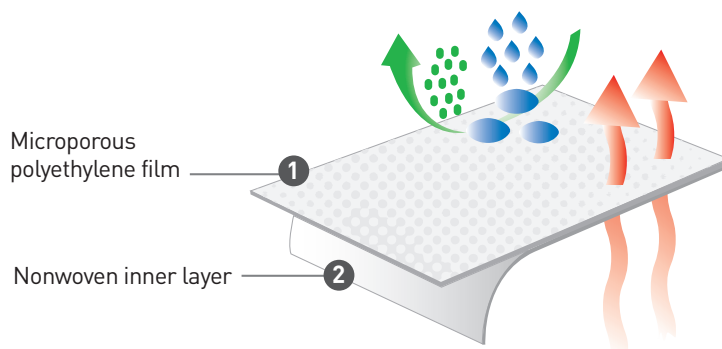
MICROGARD®  
2000  
STANDARD



MICROGARD® 2000 STANDARD provides both protection and comfort with exceptional liquid and particulate protection. Ideal for a wide range of industrial applications.

MICROGARD® 2000 is designed to allow water vapour (perspiration) to escape from the suit yet will withstand saturation of liquid chemicals and filter 100% of particulates down to 0.01 microns in size\*

The use of a high quality two-way stretch microporous film provides an effective liquid and particle barrier combined with a high water vapour transmission rate from inside to outside.



## Protection Levels & Additional Properties



TYPE 5-B



TYPE 6-B



EN 14126



DIN 32781



EN 1073-2



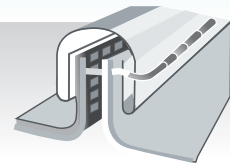
EN 1149-5

## Applications

- Pharmaceutical industries
- Agriculture
- Cleanrooms
- Paint spraying
- Crime scene investigation
- Veterinary services

## Bound Seams

Superior strength, liquid and particle barrier



## Features & Benefits

**Protection** - Excellent liquid penetration resistance and barrier to fine particulates (>0.01 microns\*)

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

**Silicone free** - Critical in paint spraying applications

**Low linting** - Reduces the risk of fibre contamination in some critical areas

**Optimised body fit** - Improves wearer comfort and safety

**Anti-static** - Tested according to EN 1149-5

\*EMSL test method

## Specialist Approvals



Biological Agents  
EN 14126:2003



Suitable for Ex-Zones

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# MICROGARD® 2000 STANDARD

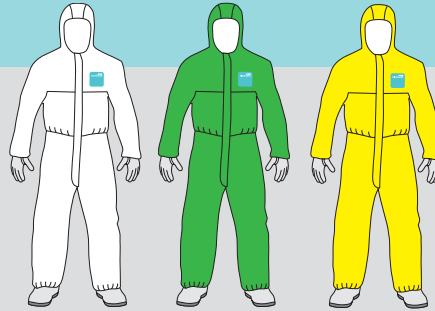
MICROGARD®  
2000  
STANDARD

## Model 111

### Suit Features

- 3-piece hood
- 2-way front zipper with resealable storm flap
- Finger loops
- Elasticated hood, waist, wrists & ankles

**Sizes:** S-5XL **Colour:** White, Green & Yellow



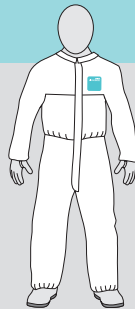
## Model 103

### Suit Features

- Collar
- 2-way front zipper with resealable storm flap
- Finger loops
- Elasticated waist, wrists & ankles

**Sizes:** S-5XL

**Colour:** White

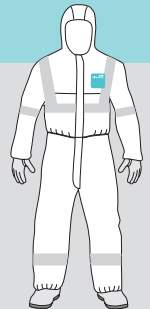


## Model 113

### Suit Features

- 3-piece hood
- 2-way front zipper with resealable storm flap
- Finger loops
- Elasticated hood, waist, wrists & ankles
- Reflective Hi-Vis tape for enhanced visibility

**Sizes:** S-5XL **Colour:** White

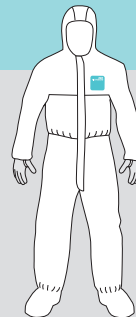


## Model 122

### Suit Features

- 3-piece hood
- 2-way front zipper with resealable storm flap.
- Finger loops
- Elasticated hood, waist & wrists & ankles
- Boot end with anti slip soles

**Sizes:** S-5XL  
**Colour:** White

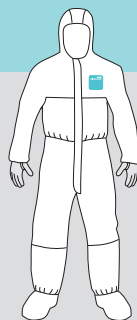


## Model 156

### Suit Features

- 3-piece hood
- 2-way front zipper with resealable storm flap
- Finger loops
- Elasticated hood, waist, wrists, ankles & overflaps
- Integrated socks with boot overflaps

**Sizes:** S-5XL **Colour:** White

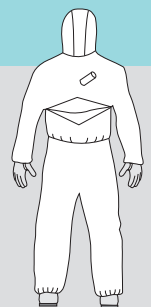


## Model 162

### Suit Features

- Pass-thru device for use with fall arrest equipment
- 3-piece hood
- 2-way front zipper with resealable storm flap
- Finger loops
- Elasticated hood, waist, wrists & ankles

**Sizes:** S-5XL **Colour:** White



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**MICROGARD®**  
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# MICROGARD® 2000 COMFORT



**MICROGARD® 2000 COMFORT** has been specifically designed for those working in warmer climates or warm working environments to help reduce the risk of heat stress.

The critical areas to the front of the garment (including the hood, arms and legs) are MICROGARD® 2000 offering a high level of liquid and particle protection with a low level of water vapour resistance. Water vapour resistance according to EN 31092 of Ret <15\*

The back panel is MICROGARD® 1500 PLUS fabric which is air and water vapour permeable. This panel allows airflow around the suit, increasing wearer comfort. Air permeability result according to EN ISO 9237 of 160 l/m<sup>2</sup>.s

Bound seams ensure spray-tight protection to the front of the garment and excellent overall particle protection.

\* Ret is a measurement of a materials resistance to moisture vapour transfer. The lower the value the less resistance there is and therefore the more breathable the fabric.

## MICROGARD® 2000 COMFORT Coverall

### Protection Levels & Additional Properties



TYPE 5



TYPE 6



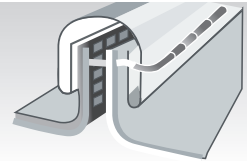
EN 1073-2



EN 1149-5

### Bound Seams

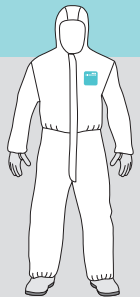
Superior strength, liquid and particle barrier



### Model 129

#### Features & Benefits:

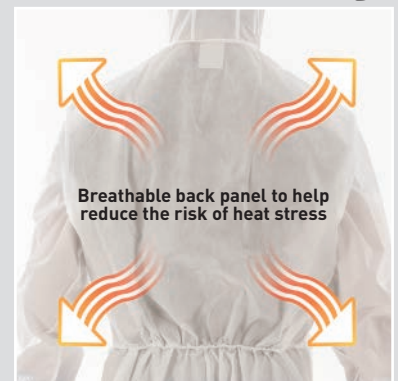
- **Protection** - Hood, arms, legs and front torso in MICROGARD® 2000 fabric
- **Comfort** - Air and water vapour permeable ("breathable") to help reduce the risk of heat stress
- **Silicone Free** - Critical in spray painting applications
- **Anti-static** - Tested according to EN 1149-5
- 3-piece hood
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- Breathable SMS back panel



**Sizes:** S-5XL  
**Colour:** White



Finger Loops



Breathable SMS back panel

### Applications

- Pharmaceutical industry
- Cleanrooms
- Paint spraying
- Veterinary services
- Pest control

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# MICROGARD® 2000 SOCO



Developed specifically for police forensic Scene of Crime Officers (SOCOs), the MICROGARD® 2000 SOCO suit will provide you with the essential balance of comfort and performance.

Working closely with Greater Manchester Police (UK) SOCOs the coverall and overboots\* were designed to fit both male and female officers and are available in a range of sizes.

This ensures that you can get on with the job without worrying about the performance or comfort of your protective clothing.

\*sold separately

## MICROGARD® 2000 SOCO Coverall

### Protection Levels & Additional Properties



TYPE 5-B



TYPE 6-B



EN 14126



EN 1073-2



DIN 32781

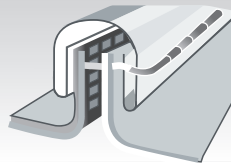


EN 1149-5

### Bound Seams

Superior strength, liquid and particle barrier

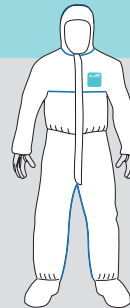
Also available with stitched and taped seams for Type 4 spray-tight applications



### Model 128

#### Features & Benefits:

- **Ultra low linting** - Reduces the risk of crime scene contamination
- **Self adhesive pockets** - Can be positioned anywhere on the garment to secure equipment
- **Finger loops** - To prevent sleeve movement when working above your head
- **Protection** - From biological agents in the highest performance class according to EN14126
- **Anti-static** - Tested according to EN 1149-5
- Elasticated hood, wrists, waist and ankles
- 2-way front zipper with resealable storm flap
- 2-piece hood
- Chinstrap
- Dual finger loops
- Supplied with 2 pockets



**Sizes:** S-5XL

**Colour:** White



Pocket



Chinstrap



### Applications

- Forensics
- Scene of Crime Officers (SOCOs)
- Crime Scene Investigation (CSI)

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# MICROGARD® 2000 Ts PLUS



## MICROGARD® 2000 Ts PLUS is now the product of choice for many pharmaceutical workers around the world.

MICROGARD® 2000 is designed to allow water vapour (perspiration) to escape from the suit yet will withstand saturation of liquid chemicals and filter 100% of particulates down to 0.01 microns in size\*.

With stitched and taped seams, MICROGARD® 2000 Ts PLUS provides an exceptional overall barrier to low hazard liquid spray and fine particulates.

\*EMSL test method

### Protection Levels & Additional Properties



TYPE 4-B



TYPE 5-B



TYPE 6-B



EN 14126



EN 1073-2



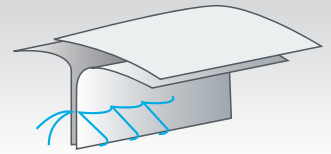
DIN 32781



EN 1149-5

### Stitched & Taped Seams

Internal stitching which is overtaped to offer increased strength and an effective barrier to liquids and particulates.



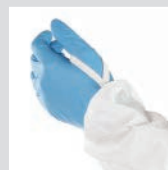
### Features and benefits

- **Protection** - Proven barrier to low concentration liquid chemicals, diluted pesticides, liquid & particulate biological hazards
- **Comfort** - Moisture vapour permeable ("breathable") to help reduce the risk of heat stress
- **Silicone Free** - Critical in spray painting applications
- **Low Linting** - Reduced risk of contamination in critical areas
- **Anti-static** - Tested according to EN 1149-5
- **Optimized Body Fit** - Improves wearer comfort and safety
- **Tunnelled elasticated wrists, hood and ankles** - Helps to minimize the risk of linting and cross contamination
- **Thumb loops** - Help to prevent sleeve movement when working above your head
- **Chinstrap** - Helps to reduce the risk of cross contamination

**Sizes:** S-5XL

**Colours:** White, Yellow (111 only), Green (111 only)

**Available in the following models:**  
103, 111, 122, 128, 139, 156



Thumb loop



Single zip with resealable flap



Chinstrap

### Applications

- Agriculture
- Paint spraying
- Pharmaceutical industries
- Fibreglass product manufacturing
- Boat and ship building
- Mining

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# MICROGARD® 2000 Accessories

## MICROGARD® 2000 Accessories

### Model 209

#### Lab Coat

- Front zip fastening
- Left breast pocket
- Lower right pocket
- Bound seams

**Sizes:** S-5XL  
**Colour:** White



### Model 301

#### Trousers

- Elastication to waist and ankles
- Bound seams

**Sizes:** S-5XL  
**Colour:** White

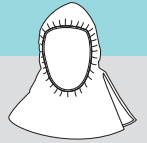


### Model 503

#### Hood

- Balaclava Style
- Elasticated face opening
- Bound seams

**Size:** One Size  
**Colour:** White



### Model 213

#### Apron

- Tie fastening to waist
- 100 cm long tie fastening

**Size:** One Size  
**Colour:** White



### Model 400

#### Overshoes

- Elasticated opening
- Bound seams

**Size:** One Size (fits 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 214

#### Apron with Sleeves

- Rear Velcro fastening
- Elasticated wrists
- Bound seams

**Sizes:** S-5XL  
**Colour:** White



### Model 401

#### Overshoes

- Elasticated opening
- Bound seams

**Size:** One Size (fits size 46-48)  
**Colour:** White



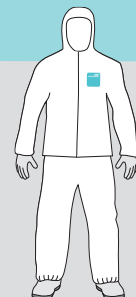
▲ Cape Hood

### Model 219

#### Jacket & Trouser Set

- Zip fastening jacket
- Elasticated hood and hem on jacket
- Elasticated waist and ankles on trousers
- Bound seams

**Sizes:** S-5XL  
**Colour:** White



### Model 406

#### Overboots

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

**Size:** One Size (fits size 42-46)  
**Colour:** White

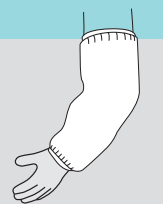


### Model 600

#### Oversleeves

- Elasticated at both ends
- Bound seams

**Size:** One Size  
**Colour:** White



### Model 407

#### Overboots - ESD

- Tie fastening
- Elastic to top of boot
- Bound seams
- ESD PVC Sole

**Sizes:** One Size (fits sizes 42-46)  
**Colour:** White



### Model 417

#### Overshoes - ESD

- Elasticated opening
- Bound seams
- ESD PVC Sole

**Size:** 39-42 • 42-46 • 46-48  
**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](mailto:sales@microgard.com) or visit [www.microgard.com](http://www.microgard.com)

# MICROGARD® 2000 Technical Data

## MICROGARD® 2000 Technical Data

MICROGARD® 2000 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 (EN14325)
EN 530 Abrasion	>100	2 of 6
EN ISO 7854 Flex Cracking	>40,000	5 of 6
EN ISO 9073-4 Tear Resistance (MD)	>40N	1 of 6
EN ISO 9073-4 Tear Resistance (CD)	>10N	
EN ISO 13934-1 Tensile Strength (MD)	>60N	1 of 6
EN ISO 13934-1 Tensile Strength (CD)	>30N	
EN 863 Puncture Resistance	>5N	1 of 6
EN ISO 13938-1 Burst Resistance	>160Pa	3 of 6
EN 1149-5 Electrostatic Properties (Surface resistivity)	<2.5 x 10 <sup>9</sup>	-
ISO 13935-2 Seam Strength	>75N	3 of 6
BS EN 20811 Hydrostatic Head (water pressure test)	>200cm	-
EN 31092/ISO 11092 Thermal Resistance (Rct in m <sup>2</sup> ·K/W)	<15 m <sup>2</sup> ·Pa/W	-
EN 31092/ISO 11092 Water Vapour Resistance (Ret in m <sup>2</sup> ·Pa/W)	<20·10 <sup>-3</sup> m <sup>2</sup> ·K/W	3 of 3 (DIN 32781)

EN ISO 6529: 2001 Chemical Permeation Barrier*			
Chemical	CAS Number	EN Class	EN Class (EN 14325: 2004)
Glycerol	56-81-5	>480	6 of 6
Doxorubicin HCl	25316-40-9	>480	6 of 6

\*For an up to date list of chemicals tested please visit [www.microgard.com](http://www.microgard.com) or email the Microgard Technical Team at [technical@microgard.com](mailto:technical@microgard.com).

The following table sets out MICROGARD® 2000 performance for resistance to chemical penetration in accordance with EN ISO 6530.

Fabric Repellence & Penetration - Resistance to Liquid Chemicals	White & Green Result (%)	EN Class	Yellow Result (%)	EN Class
Repellence of Liquids - 30% Sulphuric Acid	>95	3 of 3	>90	2 of 3
Repellence of Liquids - 10% Sodium Hydroxide	>95	3 of 3	>95	3 of 3
Repellence of Liquids - o-Xylene	>95	3 of 3	>80	1 of 3
Repellence of Liquids - Butan-1-ol	>90	2 of 3	>95	3 of 3
Resistance to penetration by liquids - 30% Sulphuric Acid	0.0	3 of 3	0.0	3 of 3
Resistance to penetration by liquids - 10% Sodium Hydroxide	0.0	3 of 3	0.0	3 of 3
Resistance to penetration by liquids - o-Xylene	0.0	3 of 3	0.0	3 of 3
Resistance to penetration by liquids - Butan-1-ol	0.0	3 of 3	0.0	3 of 3

MICROGARD® 2000 when tested in accordance with EN 14126: 2003 demonstrates an excellent barrier to infective agents.

EN14126: 2003 - 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® 2000 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](http://www.microgard.com)

Note: Unless specified test results and EN 14325 classification apply to all fabric colours.

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