

# EXOSKIN®-S1

LOW-BURDEN,  
HIGH PERFORMANCE  
CBRN SUIT





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## PRODUCT OVERVIEW

Avon Protection's new EXOSKIN-S1 CBRN suit provides improved protection against chemical warfare agents enabling users to operate in a CBRN environment for up to 24 hours.

Leveraging knowledge of soldier system integration, Avon Protection's EXOSKIN-S1 is a low-burden suit that seamlessly integrates with essential CBRN protective equipment including respirators, boots, and gloves.

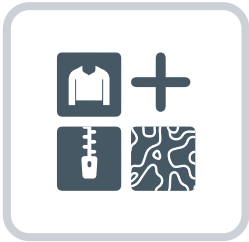
Made from a low noise emitting outer and an activated carbon inner the EXOSKIN-S1's designed to meet military and first responders requirements.



| EXOSKIN-S1 Item              | Part Number |
|------------------------------|-------------|
| Jacket ¼ Zip with Trouser    | 607734      |
| Jacket Full Zip with Trouser | 607735      |



# FEATURES AND BENEFITS



## Customizable

- Avon Protection's EXOSKIN-S1 comes in two variants, a jacket and trouser ensemble.
- Jacket zip available in different configurations and sizes to ensure suitability for all mission types and increased protection factor.
- Closed end ¼ zip or full zip available with hook & loop fastening for improved integration with body armor and added level of security for the user.
- EXOSKIN-S1 offers multiple patterns and color design formulations to help users avoid detection and attack in hostile environments.



## Low-Burden

- 30% lighter than conventional CBRN systems (average Large suit <1.8kg or 3.9lbs), reducing physiological burden on the user.
- Integrated hood with cowl front offers unrestricted movement when a respirator is worn, enabling the user to complete their mission effectively and efficiently.



## User Focused

- ¼ zip increase comfort when wearing body armor.
- Reinforced elbow and knee pad pockets covering areas of abrasion.
- Trouser braces allow for ease of donning or doffing and adjustment to each individual user's height. Each leg has a bellowed thigh pocket enabling easy access with hook & loop fastening flaps.
- Roll down hood with hook & loop tab to improve comfort and minimize the risk of snag hazards at reduced MOPP levels.
- Waist and hem adjusters for conformed fit and to adapt fit for multiple size ranges and body shapes.



## Improved Protection Factor

- Provides protection against CWAs and tested to protect for a continuous period of up to 24 hours, allowing the user to safely carry on with their mission.
- Integrated hood with double elasticated aperture ensures a protective seal around the respirator, maximizing the protection factor of the suit without restricting movement.
- Features hook and loop adjustable tabs on the lower legs, a thumb loop and inner leg gaiter with stirrup to prevent ingress when worn.
- Seamless integration with Avon Protection's respirators and the EXOSKIN range of boots and gloves.



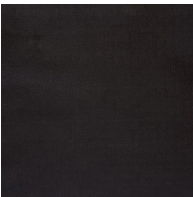
## Advanced Materials

- Multi-threat protection against vapor, liquid and particulate CWAs allowing the user to operate in different CBRN environments safely.
- Offers 24 hour protection against traditional CWAs, allowing the user longer time on target.
- Made from a lightweight, breathable outer and an activated carbon inner, making the suit feel like second skin for enhanced mobility.
- Flame retardant – Flame Retardancy Index 3 – Standard (BS EN 533:1997).

Shown below are the standard range of patterns and colors available, but customizable suit patterns and colors are also available, subject to licensing and availability.



UK MTP



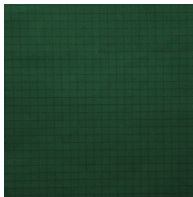
Black



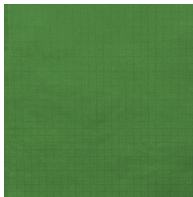
Tan/Khaki



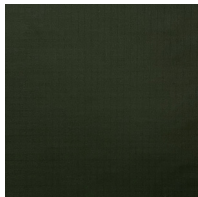
Mono Navy



Dark Olive



Drab Olive



Dark Green

TECHNICAL DATA

| TECHNICAL DATA   |   |
|--|---|
| Outer Fabric   |   |
| Flame retardancy   | Index 3 - Standard (BS EN 533:1997)   |
| Tensile strength   | 750 N Warp, 360 N Weft - Standard (BS EN ISO 13934-1:1999)  |
| Tear strength  | 45 N Warp, 45 N Weft - Standard (BS EN ISO 13937-3:2000)  |
| Abrasion resistance  | 16,000 revs at (9kPa) - Standard (BS EN ISO 12947-2:2016)   |
| Carbon Liner   |   |
| Tensile strength   | 100 N Warp, 120 N Weft - Standard (BS EN ISO 13934-2:2014)  |
| Tear strength  | 97 N Warp, 38 N Weft - Standard (BS EN ISO 13937-3:2000)  |
| Abrasion resistance  | 16,000 revs at (9kPa) - Standard (BS EN ISO 12947-2:2016)   |
| Permeation Resistance Swatch Testing   |   |
| Laid droplet, diffusive flow GD and HD<br>10g/m <sup>2</sup> (5% RH, 30°C, 24 hours, 1-µl drops) | Penetrated Quantity after 24 hours =<br>GD <0.12 µg/cm <sup>2</sup> , HD <0.15 µg/cm <sup>2</sup> |
| Breathability  |   |
| Water vapor resistance (Ret)   | 2.44 m <sup>2</sup> Pa/W - Standard (ISO 11092:2014)  |
| Thermal resistance (Rct)   | 0.007 m <sup>2</sup> K/W - Standard (ISO 11092:2014)  |
| Air permeability   | 34.3mm/sec at 100Pa – Standard (ISO 9237:1995)  |
| MIST test  | Passed in accordance with AEP-38 with Avon Protection respirators and EXOSKIN boots and gloves    |

SIZE GUIDE

| Size            | Height (cm) | Height (In) | Chest (cm) | Chest (In) | Waist (cm) | Waist (In) | Inside Leg (cm) | Inside Leg (In) |
|-----------------|-------------|-------------|------------|------------|------------|------------|-----------------|-----------------|
| Small/Short     | 165 - 173   | 65 - 68     | 84 - 92    | 33 - 36    | 80 - 88    | 31 - 34    | 74              | 29              |
| Medium/Short    |             |             | 92 - 100   | 36 - 39    | 88 - 96    | 34 - 37    |                 |                 |
| Large/Short     |             |             | 100 - 108  | 39 - 42    | 96 - 104   | 37 - 41    |                 |                 |
| X-Large/Short   |             |             | 108 - 116  | 42 - 46    | 104 - 112  | 41 - 44    |                 |                 |
| 2XL/Short       |             |             | 116 - 124  | 46 - 49    | 112 - 120  | 44 - 47    |                 |                 |
| 3XL/Short       |             |             | 124 - 132  | 49 - 52    | 120 - 128  | 47 - 50    |                 |                 |
| Small/Regular   | 173 - 180   | 68 - 71     | 84 - 92    | 33 - 36    | 80 - 88    | 31 - 34    | 79              | 31              |
| Medium/Regular  |             |             | 92 - 100   | 36 - 39    | 88 - 96    | 34 - 37    |                 |                 |
| Large/Regular   |             |             | 100 - 108  | 39 - 42    | 96 - 104   | 37 - 41    |                 |                 |
| X-Large/Regular |             |             | 108 - 116  | 42 - 46    | 104 - 112  | 41 - 44    |                 |                 |
| 2XL/Regular     |             |             | 116 - 124  | 46 - 49    | 112 - 120  | 44 - 47    |                 |                 |
| 3XL/Regular     |             |             | 124-132    | 49 - 52    | 120 - 128  | 47 - 50    |                 |                 |
| Small/Long      | 180 - 188   | 71 - 74     | 84 - 92    | 33 - 36    | 80 - 88    | 31 - 34    | 84              | 33              |
| Medium/Long     |             |             | 92 - 100   | 36 - 39    | 88 - 96    | 34 - 37    |                 |                 |
| Large/Long      |             |             | 100 - 108  | 39 - 42    | 96 - 104   | 37 - 41    |                 |                 |
| X-Large/Long    |             |             | 108 - 116  | 42 - 46    | 104 - 112  | 41 - 44    |                 |                 |
| 2XL/Long        |             |             | 116 - 124  | 46 - 49    | 112 - 120  | 44 - 47    |                 |                 |
| 3XL/Long        |             |             | 124 - 132  | 49 - 52    | 120 - 128  | 47 - 50    |                 |                 |