

SWEDISH EMERGENCY DISASTER EQUIPMENT

PPE

Personal Protection Equipment

Butyl - Re-usable - The High Range



The Total Solution

FOR NUCLEAR, BIOLOGICAL & CHEMICAL EMERGENCIES



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One Exceptional Design!

The SWEDE Butyl Decontamination Suit was specifically developed to meet the needs of the Emergency Medical First Responder to enable them to safely decontaminate casualties as a result of an incident involving the accidental or deliberate release of an industrial chemical or chemical warfare agents.

The suit specification was produced in Sweden by the ABC Chemical Incident Working Group. The group members represented the Swedish National Board of Health and Welfare, National Rescue Services Board, the Swedish Poisons Information Centre and the National Defence Research Institution.

The results of the development is a fully integrated, special for purpose, decontamination suit that provides Emergency First Responders with excellent protection, durability and comfort to complete their tasks safely and with confidence.

Comprising of:

- Respiratory Protection
- Body Coverall
- Hand Protection
- Foot Protection
- Accessories
- Purose built stowage container
- Liquid intake drinking facility
- Voice Amplifier /Radio Communication set
- Filter water protection barrier

That provides:

- Filtered air supply at 140ltrs per minute flow rate
- Fully Intergrated components
- User Comfort
- Audiable warnings – Low power, Low air flow.
- Good vision
- Good dexterity
- Ability to wear own spectacles
- Excellent protection even with facial hair.
- A range of sizes to suit all – even children
- Protection against a wide range of chemicals



Respiratory Protection – Powered Air Purifying Respiratory (PAPR)

The PAPR complies with EN 12941 Respiratory protection devices – Powered filtering devices incorporating a helmet or a hood. The system consists of a protective hood, battery powered blower unit, air hose, battery box, a waist belt and 2 x A2B2K1 P3 combination filters. The complete system provides protection against a wide range of chemicals

The blower produces a filtered air flow of 140 ltrs per minute that creates a positive pressure within the hood providing excellent protection. The air flow is designed to keep the visor clear and increase operator comfort.

The hood is manufactured in one size that fits all. This means that the hood can be worn by people with facial hair and spectacles and as there are no straps involved there is no need for adjustment. The hood is simply pulled over the head and forms a complete tight seal around the neck.



Body, Hand and Foot Protection – Complete Intergration – No Tape required!

Total intergration between all elements of the protective system to ensure operator safety has been paramount in the SWEDE PPE design. A study of the operations and conditions the medical first responder has to face when dealing with a chemical casualty such as bending, lifting, washing and carrying were all taken into consideration by the ABC team when determining the PPE specification.

The coverall is supplied with intergrated feet and outer gloves. The outer glove incorporates a sealing ring coupling that allows the glove to be changed if damaged. The coverall is further enhanced with double skin legs and arms. This design enables water to run off rather than into the joints during decontamination operations. The coverall is also manufactured with a neoprene neck seal that fully intergrates with the respiratory protection providing a complete and safe seal between the two elements of the system. There is no call to tape up the design shortfalls with the SWEDE PPE.



Double skin leg design



Integrated outer gloves



Neoprene neck seal



Stowage bag



Range of Sizes

The Butyl decontamination suit is available in a range of sizes that includes children. We have even developed an infant pod to provide protection for all members of society. The suits are supplied with braces that allow for individual adjustment within a particular size.

A complete set includes



A complete set includes:

- 1 Butyl Decontamination Suit in size S-M or L-XXL.
- 1 Suspenders.
- 1 Protective Hood.
- 1 Blower Unit with carrying belt and flow meter.
- 1 Battery Holder. 6 Battery R 14.
- 1 pair Butyl Rubber Gloves (1 spare set).
- 1 pair Cotton Gloves.
- 1 pair Rubber Boots in size 36-47.
- 2 Filter 100, ABEKP3 Radiak.
- 1 Drinking function the hood, incl. connections.
- 1 Liquid Bottle
- 1 Kit of spare parts.
- 1 Instruction manual
- 1 Stowage Bag

Optional Extra:

- 1 [Communication Kit](#)
- 1 [Cooling Vest](#)

Resistance Table / Penetration of chemicals

Chemicals		Penetration Time	Repellencyinclination 45°
Ammonia Aqua 25%	NH ₃	>480	98,0%
Sulphuric Acid 30%	H ₂ SO ₄	>206	96,5%
Hydrochloric Acid 24%	HCl	>480	99,2%
Sodium Hydroxide 40%	NaOH	>480	99,5%
Benzene	C ₆ H ₆	10	91,5%
Mustard Gas Liquid	S(CH ₂ CH ₂ Cl) ₂	>480	-

Tests performed by:
 FOA (National Defence Research Establishment)
 IFP Research (Institute of Fibre and Polymer Technique)
 TST (Textil Skyddsteknik AB)

Blower unit	47-6200 EN 12941
Power source:	Standard battery cells, 6 x 1,5V
Operating time:	> 6 hours
Weight:	850gr excl. Batteries and filters.
Warning system:	Two signals and the unit is ready to operate Short space between the signals = Low voltage Long space between the signals = Low airflow

Filter 100	72-1000 ABEKP3 Radiak
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Hood	46-6010 EN 12941
Material:	Butyl-coated polyester
Neck collar material:	Neoprene
Half mask:	Silicone
Seams:	Double seam, taped
Tape:	Butyl-tape
Safety factor:	2800
Size:	One size fits all adults.
Weight:	700 g.
Washing instructions:	Hand cleansing, soap solution.

Overall:	46-0002/5 EN 465
Material:	Butyl-coated polyester
Seams:	Taped
Elastic cuff and collar material:	Neoprene
Pockets:	2 chest pockets
Sizes:	S-M, L-XXL, XXXL
General:	Equipped with braces.
Bag:	Contains all the above (not boots)
Dimensions:	60 x 30 x 33 cm. Weight 6,5 kg