

Paul Boyé



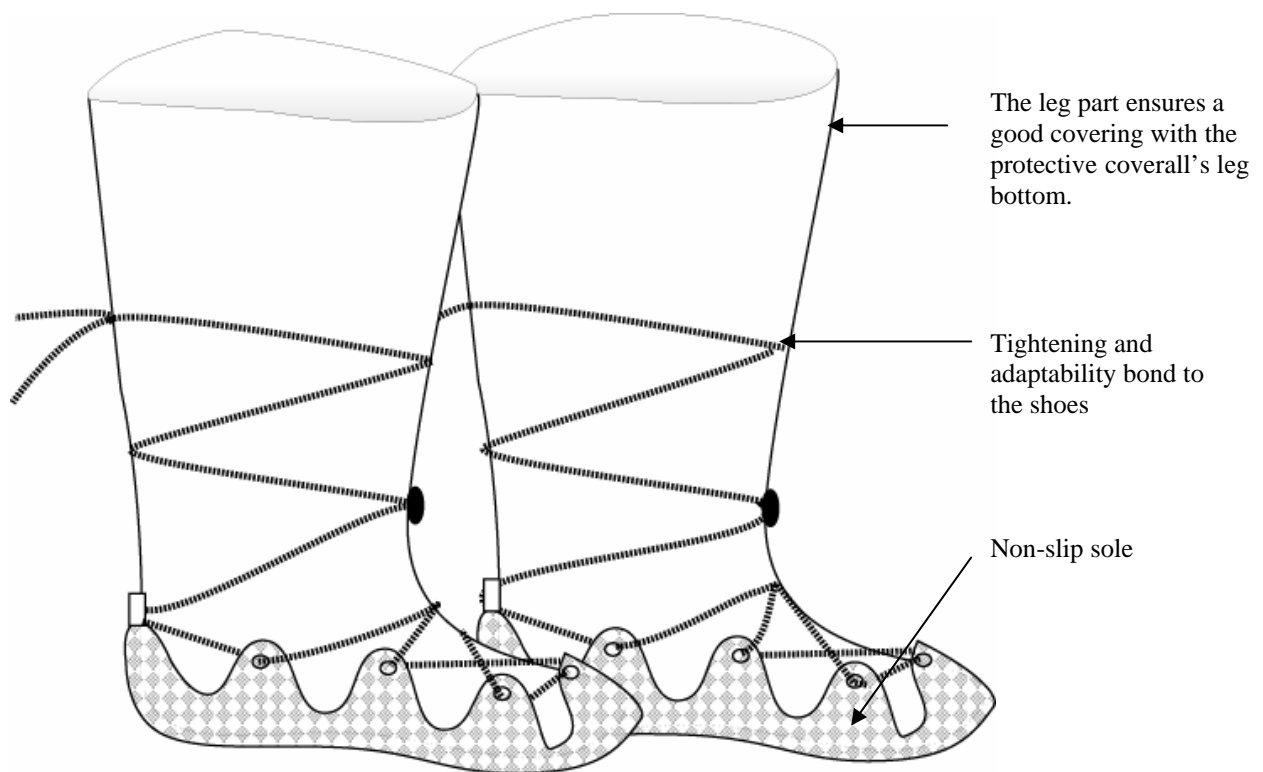
3TOX[®]
BREVET
PAUL BOYÉ



**Protective overboots against
NBC warfare agents**

NBC PROTECTIVE OVERBOOTS

The N.B.C. protective over-boots manufactured by Paul Boyé are made of 3TOX®. Thanks to a non-slip sole, they ensure a complete adhesion to all types of surface. The mounting of the soles is seamless : the adherence of the internal protective bootee to the sole is realised by welding.



General Features

The Paul Boyé NBC protective overboots are classified as chemical protective products, and are certified following European regulations (CE label).

- Composition : 3TOX® material
- Weight : 450 g
- Shelf life (storage) : 15 years



PROTECTION FOR FIRST RESPONDERS

Cutaneous protection

Impermeable suits

3TOX®

PAUL BOYÉ
PATENT

(REGISTERED MODELS AND PATENTED MATERIALS)

The NRBC Lightweight Decontamination and Protective Suit has been developed to meet the needs of military forces involved in decontamination operations or reconnaissance missions. This suit can also be used in numerous applications such as in the field of Civil Defence (firemen, police forces, emergency rescue teams, etc.), for people working in contaminated surroundings, chemical disaster areas or in industrial environments with chemical risks. The TLD complex (3TOX®) is made from a non-woven support covered by a protective complex which acts as a barrier against chemical toxic agents (liquid and gaseous), biological agents and radioactive particles.

INSTRUCTIONS FOR USE

- . The protective suits and overalls are worn directly on top of underwear or normal clothing.
- . The fastening elements between the hood and breathing mask, between the wrist and gloves as well as between the leg bottoms and boots are secured by a tightening strap.
- . Holding straps ensure the exact fitting between hood and mask.
- . It is imperative that removal of the suit be performed according to a suitable procedure in an area where the absence of contamination has been confirmed by the control and detection team.

GENERAL FEATURES

- . Thin complex (0.2 mm, +/-0.05).
- . Light and comfortable (the suit weighs ca. 500 g.).
- . Protects against warfare toxics in high concentrations (Mustard gas, VX, Soman, Levisite, Phosgene...).
- . Protects against industrial toxic agents (see list on opposite page).
- . Can be disposed of or decontaminated following contamination.
- . Suitable for all types of gas masks upon request.
- . Easy storage thanks to the small volume of the suit.
- . Excellent quality at a reasonable price.

ASSEMBLY GUARANTEED WITHOUT SEAMS (FABRIC IS NOT PERFORATED)

TOTAL IMPERMEABILITY PROVIDED BY ULTRA-SOUND REINFORCED WELDING



*** TESTS PERFORMED AT THE "CENTRE D'ETUDES DU BOUCHET"**

WARFARE TOXIC AGENTS*

Liquid drop test (10 g/m²) - closed-cell
Mustard gas

- new: > 24 hours
- after ageing: > 24 hours
- after 5 washings : > 24 hours

Nerve agents

- Tabun (GA): > 24 hours
- Sarin (GB) : > 24 hours
- Soman (GD) : > 24 hours
- VX : > 24 hours

PERFORMANCE REQUIREMENTS OF THE MATERIALS

	Specifications	Values	Conformity/ Class
Resistance to abrasion (number of cycles)	1 to 6	> 2000	6
Stability to heat (resistance to blocking)	1 to 2		1
Resistance to cracking by flexion (number of cycles)	1 to 5	> 5000 <15000	3
Resistance to trapezoidal tearing (N)	1 to 5	70,2	3
Resistance to splitting (kPa)	1 to 5	498,9	3
Resistance to perforation (N)	1 to 5	19,9	2
Resistance to the permeation of chemical products (in minutes)			
- Ammonia	1 to 6	> 33	2
- Hydrogen chloride	1 to 6	382	5
- Chlorine	1 to 6	> 480	6
- Nitric acid at 65%	1 to 6	> 480	6
- Sulphuric acid 95%	1 to 6	> 480	6
- Propionic acid (99% min)	1 to 6	106	3
- Sodium hydroxide (ground 40%)	1 to 6	> 480	6
- Methanol	1 to 6	56	2
- Ethyl acetate	1 to 6	14,3	1
- Methyl ethyl ketone	1 to 6	29	1
- Acetonitrile	1 to 6	> 480	6
- Trichlorethylene	1 to 6	285	5
- Hexane	1 to 6	> 480	6
- Isooctane	1 to 6	> 480	6
- Toluene	1 to 6	> 480	6
- Xylene	1 to 6	> 480	6
- Carbon disulfide	1 to 6	38,5	2

Performance requirements of seams, joints and assembly

Seams resistance (N)	conforms	207	4
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PROTECTION AGAINST BIOLOGICAL THREAT

3TOX® material is compliant with F1671-97b Standard Test : "Method for Resistance of Materials Used in Protective Clothing to Penetration by Blood-Borne Pathogens Using Phi-X174 Bacteriophage Penetration as a Test System"

Resistance to military-like chemicals (in minutes)

- Hydrazine : > 480 min.
- Chloro pikrin : > 480 min.
- Phosgene : > 480 min.

Decontamination and protective

The Lightweight Decontamination and Protective Suit C2000 has been developed to meet the needs of military forces involved in decontamination operations or reconnaissance mission and fit also to the Civil Defense and first responders needs for exemple in chemical disasters or in industrials environment with chemical threats.

