

COMPACT PRODUCT CATALOGUE



RESPIREX™

A photograph showing two emergency responders in full-body gas-tight suits. One responder is wearing a bright yellow suit and green rubber boots, while the other is wearing a bright orange suit and green rubber boots. They are both wearing hoods with clear face shields. They are crouching on a gravel surface next to a train track, with a train car visible in the background. A green rectangular box is overlaid on the top left of the image, containing the title 'GAS-TIGHT SUITS' in white, bold, sans-serif capital letters.

GAS-TIGHT SUITS

BACKGROUND:

Gas-tight suits protect emergency responders and chemical workers from dangerous and toxic chemicals in liquid or gaseous form. They are used in areas that are considered immediately dangerous to life and health (IDLH).

Type 1A suits are designed for Self-Contained Breathing Apparatus (SCBA) worn inside the suit, which provides the greatest protection to the emergency responder and simplifies decontamination after an incident. Type 1B suits are for SCBA worn externally and can be useful when working in confined spaces, as the SCBA cylinder can be slipped off the shoulders and passed forward. Type 1C suits provide breathing air via an air-line and are commonly used in industrial applications.

All gas-tight suits are leak-tightness tested to EN 464 during manufacture..

APPLICATIONS:

- Fire brigades
- Civil defence & CBRN
- Chemical industry
- Petrochemical
- Shipping
- Private Hazmat teams
- Bomb disposal

GTL LIGHTWEIGHT SUIT

A lightweight, fully encapsulating, Type 1A - ET gas-tight suit, designed to protect the emergency responder against toxic, corrosive gases, liquids and solid chemicals.

- Ten year shelf life (seven years maintenance free)
- Compatible with the Permasure® Toxicity Modeller for calculation of safe working time with a given chemical based on real world conditions
- Fully encapsulating design to allow breathing apparatus to be worn inside the suit
- Manufactured in yellow Chemprotex™ 400 a light weight high performance chemical barrier, multi-layer non-woven fabric
- Heavy-duty 122cm (48") long gas-tight zip, fitted to the right hand side of the suit; a flap with a hook and loop fastener fitted to cover the teeth of the zip
- Adjustable internal support belt and bat-wing sleeves for optimum wearer comfort
- Flexible, multi-laminated, anti-mist visor giving clear undistorted vision
- Chemically protective, laminated glove welded to the suit material with an elasticated over-sleeve to prevent splash entering the supplied Neoprene outer gloves
- Integral socks with outer splash guards
- Pressure test & inspection required at year seven
- ESD version (GTL ESD) available with antistatic butyl outer gloves and covered exhalation valves for use in Ex atmospheres



Testing & Certification:



TYPE 1A, EN 943-2:2002(ET)

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles - Requirements for suits for Emergency Teams



EN 1073-2:2002, Class 3 (NPF >9090)

Protective clothing against radioactive contamination



FINABEL 0.7.C

Chemical Warfare Agents



EN 14126:2003

Protective Clothing Against Infective Agents

ATEX Zones (GTL ESD Version only)



Tested in accordance with EN IEC 60079-32-2:2015 and CEN/CLC/TR 16832:2015 for use in the following ATEX environments:

Dust Ex atmospheres:

ZONES 20, 21 & 22

Gas Ex atmospheres:

ZONES 1 & 2

TYCHEM® TK SUIT

Fully encapsulating Type 1A - ET limited life gas-tight suit manufactured in DuPont™ Tychem® TK a high performance, seven layer, non-woven, chemical barrier fabric.



- Fully encapsulating design to allow breathing apparatus to be worn inside the suit
- Heavy duty 122cm (48") long gas-tight zip, fitted to the right hand side of the suit - flap with a hook and loop fastener fitted to cover the teeth of the zip
- Adjustable internal support belt and bat-wing sleeves for optimal wearer comfort
- Flexible, multi-laminated, anti-mist visor giving clear undistorted vision
- Detachable gloves fitted using gas-tight locking cuff
- Bonded inner & outer gloves provide chemical and mechanical protection
- Supplied with detachable Hazmax™ FPA safety boots for speed of donning and increased user comfort, sock feet with outer splash guards available as an option
- Ten year shelf-life
- Maintenance free for the first five years unless used
- Pressure test annually from year five or after each use

Options:

- Air-line pass-through for supplementary air
- Equipment attachment points

Testing & Certification:



TYPE 1A, EN 943-2:2002(ET)

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles - Requirements for suits for Emergency Teams



EN 1073-2:2002, Class 3 (NPF >9090)

Protective clothing against radioactive contamination



FINABEL 0.7.C

Chemical Warfare Agents



EN 14126:2003

Protective Clothing Against Infective Agents

GTB REUSABLE SUIT

The GTB is a Type 1A - ET reusable gas-tight suit suitable for emergency responders and in industrial applications such as HF alkylation facilities. The fully encapsulating suit covers the breathing apparatus and facemask, simplifying decontamination. Manufactured in either Viton®/Butyl/Viton® (VBV), our hardest wearing material, or Laminate Viton®, our lightest reusable Type 1A-ET suit fabric, with excellent chemical permeation resistance.

- Heavy-duty gas-tight zip fitted to the right hand side of the suit (running from the thigh to the top of the head), protected by double storm flaps with a hook and loop fastener
- Large double-layer rigid visor, provides clear undistorted vision
- Detachable gloves fitted using gas-tight locking cuff
- Bonded inner & outer gloves provide chemical and mechanical protection
- Supplied with detachable Hazmax™ FPA safety boots for speed of donning and increased user comfort, sock feet with outer splash guards available as an option
- Adjustable internal waist belt allows wearers of varying sizes to use the suit comfortably
- Ten year shelf life
- Pressure test required annually or after each use

Options:

- Air-line pass-through for supplementary air
- Equipment attachment points & internal radio pocket
- Suit ventilation (GTVB model number)
- Fall arrest system

Testing & Certification:



TYPE 1A, EN 943-2:2002(ET)

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles - Requirements for suits for Emergency Teams



TYPE 1A, EN 943-1:2002

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles



EN 1073-2:2002, Class 3 (NPF >9090)

Protective clothing against radioactive contamination



FINABEL 0.7.C

Chemical Warfare Agents



EN 14126:2003

Protective Clothing Against Infective Agents



GLS SUITS



BACKGROUND:

The GLS range of suits were developed at the request of several leading European chemical manufacturers and represent a new concept in lightweight chemical protective clothing. They are single-use Type 3 garments that are comfortable, light, flexible and manufactured and tested to ISO 17491-1:2012 Method 2 - the gas-tightness inflation standard for protective clothing.

They are also suitable for use in a number of different EX zones (see the individual suits for details).

APPLICATIONS:

- Industrial fire brigades
- Chemical industry
- Petrochemical
- Pharmaceutical

GLS 300 A

The GLS 300A suit in Chemprotex™ 300 is a single use fully encapsulating gas-tight chemical protection suit covering both the wearer and the breathing apparatus. The suit combines the benefits of a lightweight high-performance chemical barrier fabric with a gas-tight construction to method 2 of ISO 17491-1. It incorporates attached antistatic chemical gloves, sock feet and a lightweight gas-tight zip.

- Large laminated anti-mist visor gives clear undistorted vision
- Twin exhalation valves to side of hood to ensure that the suit maintains a comfortable working pressure
- Lightweight gas-tight zip fitted to rear of suit, closing at the top and covered with a double storm flap with hook and loop fastener
- Chemically protective anti-static glove attached to the suit
- Integral socks in Chemprotex™ 300 material with splash-guard outer legs allowing the wearing of customer's own boots. (Boots not included)
- Must be worn with ESD footwear to ensure a conductive path to ground [when used in potentially explosive atmospheres]



Testing & Certification:



TYPE 3, EN14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010
Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009
Limited Spray-Tight Chemical Protective Clothing



METHOD 2, ISO 17491-1:2012
Internal pressure test



ATEX Tested for use in explosive environments:



Dust Ex atmospheres: **ZONES 20, 21 & 22**
Gas Ex atmospheres: **ZONES 1 & 2**

Tested in accordance with EN IEC 60079-32-2: (2015)
and CEN/CLC/TR 16832:2015

GLS 300 B



The GLS 300B suit in Chemprotex™ 300 is a single use gas-tight chemical protection suit designed for use with breathing apparatus worn outside the suit, a facemask and filter or airline respirator. The suit combines the benefits of a lightweight high-performance chemical barrier fabric with a gas-tight construction to method 2 of ISO 17491-1. It incorporates permanently attached antistatic chemical gloves, sock feet and a lightweight gas-tight zip.

- Integral hood with patented facemask seal providing a type 3 liquid jet seal with an outer chemical barrier fabric. Please see list of approved facemasks.
- Lightweight gas-tight zip fitted across the shoulders in rear of suit, with double external cover flaps with a hook and loop fastener
- Chemically protective anti-static glove attached to the suit
- Integral socks in Chemprotex™ 300 material with splash-guard outer legs allowing the wearing of customer's own boots. (Boots not included)
- Must be worn with ESD footwear to ensure a conductive path to ground [when used in potentially explosive atmospheres]

Tested for use with the following facemasks:

- MSA Auer 3S
- Draeger Panorama Nova

Testing & Certification:



TYPE 3, EN14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010
Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009
Limited Spray-Tight Chemical Protective Clothing



METHOD 2, ISO 17491-1:2012
Internal pressure test

ATEX Tested for use in explosive environments:



Dust Ex atmospheres: **ZONES 20, 21 & 22**
Gas Ex atmospheres: **ZONES 0, 1 & 2**
Tested in accordance with EN IEC 60079-32-2: (2015)
and CEN/CLC/TR 16832:2015



GLS 300 C

The GLS 300C suit in Chemprotex™ 300 is a single use air-fed gas-tight chemical protection suit for use with breathable air supplied from an external compressed air source providing positive pressure. The suit combines the benefits of a lightweight high-performance chemical barrier fabric with a gas-tight construction to method 2 of ISO 17491-1.

- Semi-rigid laminated visor
- Lightweight gas-tight zip fitted across the chest covered by double external storm flaps with hook and loop fastener
- Chemically protective anti-static glove attached to the suit
- Integral socks in Chemprotex™ 300 material with splash-guard outer legs
- Must be worn with ESD footwear when used in potentially explosive atmospheres
- The air distribution system in the hood and air permeable collar provide cooling air through the suit
- For use with Bartels & Rieger two piece air control valve (ref. RVD039W), supplied separately
- The hood design provides high protection without the need for a tight-fitting face piece, which means:
 - Can be used by wearers with facial hair or glasses
 - Training needs are reduced
 - Face-fit testing is not required



Testing & Certification:



TYPE 3, EN14605:2005+A1:2009

Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1:2009

Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010

Particulate Protective Clothing



TYPE 6, EN13034:2005+A1:2009

Limited Spray-Tight Chemical Protective Clothing



METHOD 2, ISO 17491-1:2012

Internal pressure test

ATEX Tested for use in explosive environments:



Dust Ex atmospheres: **ZONES 20, 21 & 22**

Gas Ex atmospheres: **ZONES 1 & 2**

Tested in accordance with EN IEC 60079-32-2: (2015)
and CEN/CLC/TR 16832:2015



LIQUID-TIGHT SUITS



BACKGROUND:

Limited-life Type 3 liquid tight chemical splash suits provide an economical solution for dealing with a wide range of chemical and CBRN hazards. Particularly suitable for applications where suits are needed infrequently, where the type of hazard is unknown, or where decontamination facilities are limited - they are widely used by fire brigades, police, civil defence, transport and shipping companies.

Reusable Type 3 liquid-tight chemical splash suits provide a durable, cost effective solution for applications where the chemical hazard is known (e.g. industrial applications) and where decontamination facilities are readily available. The increased strength of material and options for reinforcement make reusable splash suits suitable for situations with a greater risk of abrasion or puncture. The locking cuffs fitted to the suit allow gloves to be selected (and changed) based on the application and chemicals being used.

APPLICATIONS:

SPLASH SUITS

- Fire brigades
- Civil defence & CBRN
- Chemical industry
- Shipping
- Spill clean-up

REUSABLE SUITS

- Petrochemical
- Pharmaceutical
- Chemical handling & transport

CHEMPROTEX™ 300SC1 SPLASH SUIT

Lightweight, Type 3 liquid-tight chemical splash contamination suit, designed for use with breathing apparatus worn outside the suit, or with a face mask and filter.

- Compatible with the Permasure® Toxicity Modeller for calculation of safe working time with a given chemical based on real world conditions (see page 30)
- One-piece construction in Chemprotex™ 300
- Integral hood, with Neoprene rubber face grommet, to seal around the wearer's face mask
- 91cm (36") Nylon zip, fitted across the shoulders in the rear of the suit, with double external zip-flaps sealed with double-sided tape
- Kemblok™ chemically protective laminated glove, welded to the suit material
- Supplied with separate neoprene outer gloves for mechanical protection
- Integral socks, with plain outer leg, allowing the wearing of customer's own boots (boots not included)



Testing & Certification:



TYPE 3, EN14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010
Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009
Limited Spray-Tight Chemical Protective Clothing



FINABEL 0.7.C
Chemical Warfare Agents



EN 14126:2003
Protective Clothing Against Infective Agents



EN 1073-2:2002
Protective clothing against radioactive contamination



EN1149-5:2008
Antistatic protective clothing



Flexible neoprene face grommet

Alternate colour options (MOQ applies):



Navy Blue



Olive Green

Contact the sales team for current minimum order quantities of the above alternate colours

CHEMPROTEX™ 300 SC1 ULTRA SUIT

Lightweight, Type 3 liquid-tight chemical splash contamination suit, designed for use with breathing apparatus worn outside the suit, or with a face mask and filter.



- Compatible with the Permasure® Toxicity Modeller for calculation of safe working time with a given chemical based on real world conditions
- One-piece construction in Chemprotex™ 300
- Integral hood, with Neoprene rubber face grommet, to seal around the wearer's face mask
- 91cm (36") Nylon zip, fitted across the shoulders in the rear of the suit, with double external zip-flaps sealed with a hook and loop fastener for quicker donning & doffing
- Chemically protective butyl glove, permanently attached to the suit material
- Integral socks, with plain outer leg, allowing the wearing of customer's own boots (boots not included)
- Earthing strip on feet for use with ESD/Conductive boots to provide a conductive path from the gloves to earth for static sensitive applications

Testing & Certification:



TYPE 3, EN14605:2005+A1 2009

Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009

Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010

Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009

Limited Spray-Tight Chemical Protective Clothing



FINABEL 0.7.C

Chemical Warfare Agents



EN 14126:2003

Protective Clothing Against Infective Agents



EN 1073-2:2002

Protective clothing against radioactive contamination



EN1149-5:2008

Antistatic protective clothing



Resealable Zip Flap

LIGHTWEIGHT COMBI SUIT

Lightweight, Type 3 liquid-tight, limited-life cowl suit, designed for use with a face mask and filter or appropriate face and head protection.

- Compatible with the PermaSure® Toxicity Modeller for calculation of safe working time with a given chemical based on real world conditions (see page 63)
- One-piece construction in blue Chemprotex™ 300
- Integral elasticated hood
- Nylon zip, fitted vertically from groin to neck with twin flaps and hook and loop fastener to seal
- Unique zip-flap arrangement ensures liquid tight performance without the need for taping the flap
- Minimal taping required to achieve stated performance - unlike the majority of other suits that require taping at the wrist, ankle zip and facemask, the lightweight combi needs only a single piece of tape at the neck, dramatically reducing donning and doffing times
- Elasticated legs
- Double cuff with elasticated outer and soft elasticated inner for user comfort and thumb loop to ensure sleeves don't ride up the arm in use



Testing & Certification:



TYPE 3, EN14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010
Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009
Limited Spray-Tight Chemical Protective Clothing
EN 14126:2003



Protective Clothing Against Infective Agents



EN1149-5:2008
Antistatic protective clothing



Double cuff with thumb loop



REUSABLE ONE-PIECE SIREN SUIT

Type 4 one-piece siren suit in Butyl, Neoprene or PVC, with a choice of collar. Nylon zip fitted from throat centre to right hand thigh, plain inner zip flap and single outer zip flap with hook and loop fastener.

Collar Options: Mandarin, 2" collar, squared collar

Cuff Options: Single elasticated, double elasticated, Soft cuffs and cones, locking cuff.

Leg Options: Plain leg with hook and loop fastener for adjustment, elasticated inner with plain outer, double elasticated, detachable Hazmax™ boots.

Testing & Certification:



TYPE 3, EN 14605:2005+A1 2009

Liquid-Tight Chemical Protective Clothing



TYPE 4, EN 14605:2005+A1 2009

Spray-Tight Chemical Protective Clothing

**N.B. Certified to Type 3 when used with a Simplair Hood - Requires taping at ankles (depending on leg option) and zip*



REUSABLE ONE-PIECE COWL SUIT

Type 3 one-piece cowl suit in yellow Neoprene with hood, Nylon zip fitted from throat centre to right hand thigh, plain inner zip flap and single outer zip flap with hook and loop fastener.

Hood Options: Elasticated or draw string

Cuff Options: Single elasticated, double elasticated, Soft cuffs and cones, locking cuff.

Leg Options: Plain leg with hook and loop fastener for adjustment, elasticated inner with plain outer, double elasticated, detachable Hazmax™ boots.

Testing & Certification:



TYPE 3, EN 14605:2005+A1 2009

Liquid-Tight Chemical Protective Clothing

**N.B. Taping required at ankles (depending on leg option), zip and facemask for Type 3.*

REUSABLE JACKET

Type 3* jacket in Butyl, Neoprene or PVC and available with a choice of collar or hood. Nylon zip, fitted from throat centre to waist with plain inner zip flap and single outer zip flap with hook and loop fastener. For full protection, wear with an appropriate helmet with a Neoprene neck flap.

Collar Options: Mandarin, 2" collar, squared collar

Hood Options: Elasticated or draw string

Cuff Options: Single elasticated, double elasticated, Soft cuffs and cones, locking cuff.

Testing & Certification:



TYPE 3 [PB], EN 14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4 [PB], EN 14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing

**N.B. Certified to Type 3 when used with a Simplair Hood - Requires taping at ankles (depending on leg option) and zip*



REUSABLE TROUSERS

Type 3* bib-trousers in yellow Neoprene with red webbing braces and buckles at the front.

Leg Options: Plain leg with hook and loop fastener for adjustment, elasticated inner with plain outer, double elasticated, detachable Hazmax™ boots.

Testing & Certification:



TYPE 3 [PB], EN 14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4 [PB], EN 14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing

**N.B.: Jacket and trousers individually meet Type PB[3] and PB[4] but meet Type 3 and 4 when worn in combination. Jackets with a hood must be worn with a facemask to meet Type 3, Jackets with a collar must be worn with a protective hood (e.g. Simplair hood or Anti-splash hood).*

Taping required at ankles (depending on leg option), zip and facemask/hood for Type 3.





AIR-FED HOODS & SUITS

BACKGROUND:

Reusable air-fed chemical suits and hoods are typically used in petrochemical and chemical applications and in pharmaceutical applications where there is no risk of cross-contamination. Suits are certified to EN 943-1:2002 Type 2 (non-gas-tight chemical protective suits), while hoods are approved to EN 14594 (respiratory protective devices)

APPLICATIONS:

- Chemical industry
- Petrochemical
- Pharmaceutical
- Tank/silo cleaning

SIMPLAIR REUSABLE HOOD

Air-supplied hood available in yellow Neoprene material or PVC with a choice of a rigid visor and outer disposable visor or a soft 360° visor.

- Drawstring neck-seal
 - PVC Hoods feature 360° soft visor; Neoprene hoods incorporate a rigid wraparound visor
 - Three-point hanging attachments
 - Adjustable waist-belt with back pad
 - Simplair air system mounted in cape incorporating low-flow warning whistle
 - Air distribution block with twin breathing hoses to either side of the hood.
 - Pigtail yellow PVC $\frac{3}{8}$ " bore air-hose, terminating in a $\frac{1}{4}$ " BSP male thread
 - Required airflow: 220(min) to 280(max) L/min
-



Testing & Certification:



CLASS 4A, EN 14594:2005 (Head-top)
Respiratory Protective Devices

CLASS 4B, EN 14594:2005 (Belt Assembly)
Respiratory Protective Devices



SIMPLAIR REUSABLE TANK SUIT



Type 2 non-gas-tight reusable tank suit available in a range of chemically resistant materials with rigid visor and outer disposable visor.

- 122cm (48") Heavy-duty gas-tight zip, positioned down the right hand side of the suit, closing at the top
- Respirex™ locking cuff system with reinforced cuffs
- Leg options: elasticated inner and outer legs with elasticated stirrups, sock foot or detachable Hazmax™ boots
- Audible warning device designed to activate if the airflow drops below the minimum required to maintain CO₂ below 1%
- Adjustable waist-belt supports the air system and is fitted with a foam back pad for increased comfort
- Air distribution block with twin breathing hoses to either side of the hood and cooling hoses to wearer's arms and legs
- Three-point hanging attachments
- Pigtail yellow PVC 3/8" bore air-hose, terminating in a 1/4" BSP male thread
- Exhalation valves ensure that the suit maintains a comfortable working pressure
- Available in Butyl, Neoprene or C2 PVC materials
- Required airflow: 360(min) to 440(max) L/min

Testing & Certification:



TYPE 2, EN 943-1:2002

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles - Non gas-tight

SIMPLAIR REUSABLE SUIT

Type 2 non-gas-tight reusable suit available in a range of chemically resistant materials.

- Air system completely contained within the suit that provides breathable and cooling air to the user
- Audible warning device designed to activate if the airflow drops below the minimum required to maintain CO₂ below 1%
- Adjustable waist-belt supports the air system and is fitted with a foam back pad for increased comfort
- Four exhalation valves ensure that the suit maintains a comfortable working pressure
- Flexible PVC visor giving a 360° field of vision, or durable rigid PVC visor (with optional removable outer visor) for undistorted vision
- Three-point hanging system which helps prevent distortion during storage
- 91cm (36") Water-tight zip or double-sided Nylon zip, fitted across the chest
- 15cm (6") Zip flap - plain or with hook and loop fastener
- Respirex™ locking cuff system
- Leg options: elasticated inner and outer legs with elasticated stirrups, sock foot or detachable Hazmax™ boots
- A wide range of approved airline couplings can be fitted to the suit, however it is recommended that large bore couplings are used
- Available in Butyl, Neoprene or C2 PVC materials
- Required airflow: 360(min) to 440(max) L/min



Testing & Certification:



TYPE 2, EN 943-1:2002

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles - Non gas-tight

POWERED AIR SUITS



BACKGROUND:

Powered air systems provide continuous filtered air to the user increasing wearer comfort and allowing the user to work for longer due to the reduced physical burden.

The loose-fitting hood design of powered respirator suits (and hoods) provides high protection without the need for a tight-fitting face piece, which means:

- Many wearers feel less constricted
- They can be used by wearers with facial hair
- Training needs are reduced
- Face-fit testing is not required
- The unobstructed view of the wearers face provides reassurance to casualties and aids communication

APPLICATIONS:

PRPS

- Civil defence & CBRN
- Healthcare
- Fire brigades
- Police

FLO-POD™

- Healthcare
- Aid agencies
- Nuclear

PRPS SUIT

The Powered Respirator Protective Suit (PRPS) is a one-piece gas-tight chemical protective suit for use by emergency response personnel after a CBRN incident. The suit was developed in conjunction with the UK National Health Service and is now widely used in the UK and overseas.

- Manufactured from DuPont™ Tychem® TK, a high performance, multi-layer chemical barrier material
- Respiratory system comprising a battery powered 3M™ Jupiter™ air filter unit fitted with a visual display unit mounted inside the suit at the base of the visor, and audible alarm
- Battery pack provides 1 hour operational use, plus 15 minutes for decontamination
- Twin 3M™ JRF-85 gas & particle filters provide protection against chemical and biological warfare agents
- Heavy duty gas-tight zip fitted across the chest enclosed by double external storm flaps with hook and loop fastener
- Dual glove system comprising protective outer gloves bonded to inner Kemblok™ laminate gloves
- Gas-tight locking cuff mechanism
- Highly chemically resistant Hazmax™ FPA safety boots permanently attached to suit
- Improved operational duration over gas-tight SCBA suits

Options:

- Reusable PVC training suit - PRPS(T)
- Choice of lightweight dexterity gloves for medical tasks or heavy-duty gloves for increased physical protection

Testing & Certification:



TYPE 1C*, EN 943-2:2002

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles



FINABEL 0.7.C

Chemical Warfare Agents



EN 14126:2003

Protective Clothing Against Infective Agents



EN12941:1998+A2:2008

Respiratory protective devices



DuPont™ and Tychem® are trademarks or registered trademarks of E.I. du Pont de Nemours and Company.

3M™ and Jupiter™ are trademarks of the 3M Company

Hazmax™ is a registered trademark of Respirex International Limited

RJS SUIT

The RJS 300 Chemical Respirator Suit is a one-piece Type 3 chemical protective suit for use in hazardous industrial and emergency response environments.

Manufactured from Chemprotex™ 300, a high performance, lightweight, chemical barrier fabric the RJS suit protects the wearer against a broad range of industrial chemicals and other agents found in civil emergency situations.



- Air drawn through the filters enters through a breathing tube in the hood and exits through exhaust valves in the knees, providing a cooling air stream across the body
- Chest zip with double storm flap and hook and loop fastener - no taping is required to seal
- Kemblok™ chemically protective laminated glove welded to the suit material, with elasticated over-sleeve for use with gloves providing mechanical protection without the need for taping of gloves
- Integral sock foot with elasticated outer leg allows the user to choose their own boots without compromising the level of protection
- Head-up display in the hood indicates turbo status, hours used and any warnings
- Suit achieves a Type 3 classification without the need for taping at the zip flap, sleeves or ankles, simplifying the donning & doffing process

Testing & Certification:



TYPE 3, EN14605:2005+A1 2009

Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009

Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010

Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009

Limited Spray-Tight Chemical Protective Clothing



FINABEL 0.7.C

Chemical Warfare Agents



EN 14126:2003

Protective Clothing Against Infective Agents



EN12941:1998+A2:2008

Respiratory protective devices



FLO-POD™ SUIT

A full body suit designed for use with the FLO-POD™ powered respirator incorporating a large visor for excellent all-round visibility. The fully sealed design provides excellent protection against blood borne pathogens and simplifies decontamination and doffing.

- Manufactured in lightweight PE based particulate and viral barrier fabric with spun-bonded interior for comfort.
 - Elasticated draw-string neck seal
 - Elasticated waist
 - Rear entry design, with a horizontal zip across the shoulders, with taped cover-flaps
 - Low pressure, balanced exhalation valves
 - Fitted with welded Kemblok™ chemical and viral protective gloves for use with an outer pair of surgical gloves or gloves providing mechanical protection
 - Integral sock foot with splash guard outer leg
 - Suit material is halogen free and safe for incineration
-

Testing & Certification:



TYPE 3, EN14605:2005+A1 2009
Liquid-Tight Chemical Protective Clothing



TYPE 4, EN14605:2005+A1 2009
Spray-Tight Chemical Protective Clothing



TYPE 5, EN13982-1:2004+A1:2010
Particulate Protective Clothing



TYPE 6, EN13034:2005+A1 2009
Limited Spray-Tight Chemical Protective Clothing



EN 14126:2003
Protective Clothing Against Infective Agents



EN12941:1998+A2:2008
Respiratory protective devices



FLO-POD™ POWERED RESPIRATOR

The FLO-POD™ is a simple to use powered air respirator for use against fine dust, particulate spray or micro-organisms. Powered by a belt mounted battery pack the FLO-POD™ is designed to fit directly into the visor of compatible suits and hoods, allowing the user full operational freedom.

Designed from the outset to be comfortable and simple to use, the FLO-POD™ requires little familiarisation prior to use and is lightweight and quiet in operation.



PROTECTIVE FOOTWEAR



BACKGROUND:

Workmaster™ boots from Respirex are manufactured at our state of the art production facility in the UK and incorporate a number of significant innovations.

Our boots are available with a high-grip vulcanised rubber soles which significantly improves the slip resistance and the durability of the sole compared to conventional materials. It is also fuel and oil resistant and resistant to hot contact.

We have a range of specialist materials from the highly chemically resistant Hazmax™ compound to Cryolite which is lightweight and biodegradable. We were also the first manufacturer to release a boot that is certified for live working up to 26,500 Volts.

Our full range of boots (including food and construction industry footwear) can be found at www.workmasterboots.com

APPLICATIONS:

HAZMAX™ BOOTS

- Petrochemical
- Chemical Industry
- Pharmaceutical
- Civil defence & CBRN
- Military
- Fire brigades
- Police

DIELECTRIC BOOTS

- Utilities
- Shipping

HAZMAX™ BOOT



A chemically protective anti-static boot with an integral steel toe cap and vulcanised rubber sole for superior slip resistance. Applications include petrochemical, pharmaceutical, chemical waste handling and aluminium processing.

- Green Hazmax chemically resistant compound shaft certified to EN 13832-3 (see page 30 or visit workmasterboots.com for full chemical permeation data)
 - Black vulcanised rubber sole for maximum grip - 30% better than a conventional safety boot sole
 - Durable cut resistant sole provides two to three times the wear resistance of conventional soles
 - Machine washable at 40°C
-

Testing & Certification:



EN20345:2011 S5 SRC CI HRO
Safety Footwear



EN13832-3:2018 K O R
Footwear protecting against prolonged contact with chemicals.

HAZMAX ESD BOOT



A chemically protective Electro-Static Discharge (ESD) version of the Hazmax™ that is suitable for applications such as pharmaceutical electro-protective areas.

- For use in EPA areas conforming to EN 61340-5 (ESD 99.6 MΩ dry, 11.8 MΩ wet EN ISO 20345)
-

Testing & Certification:

As Hazmax above.

HAZMAX OVERBOOTS



Chemically protective anti-static overboots in a choice of two styles; Maxi Overboots for use over safety boots, Compact Overboots for use over safety shoes/trainers.

- Green Hazmax chemically resistant compound shaft certified to EN 13832-3 (see workmasterboots.com for chemical permeation data)
- Machine washable at 40°C

HAZMAX™ FPA BOOT



Hazmax™ FPA boots offer the same performance as Hazmax™ boots but provide increased heat resistance and conforms to the EN 15090:2012 HI₃F3A Fire fighter boot standard.

- Resistant to flame and radiant heat (20kW/m²)
- Heat insulation of the sole (250°C for 40 minutes)
- Green Hazmax chemically resistant compound shaft certified to EN 13832-3
- Black vulcanised rubber sole for maximum grip - 30% better than a conventional safety boot sole

Testing & Certification:



EN20345:2011 S5 SRC CI HRO
Safety Footwear



EN13832-3:2018 K O R
Footwear protecting against prolonged contact with chemicals.



EN 15090:2012 Type F3A
Footwear for Fire-fighters

ISOTEC BOOT



A heat-resistant safety boot conforming to the EN 15090 HI₃F3A fire boot standard for flame resistance, radiant heat (20kW/m²) and heat insulation of the sole (250°C for 40 minutes). These boots are designed for use in areas where there is a risk of sparks from welding or grinding or for close proximity fire fighting.

- Certified to the Marine Equipment Directive (MED) 2014/90/EU Item 3.4 - Fire-fighter's outfit: Boots
- Chemically resistant boot certified to EN 13832-3 level 5
- Black vulcanised rubber sole for maximum grip - 30% better than a conventional safety boot sole

Testing & Certification:



EN20345:2011 S5 SRC CI HRO
Safety Footwear



EN13832-3:2018 K N Q
Footwear protecting against prolonged contact with chemicals.



EN 15090:2012 Type F3A
Footwear for Fire-fighters

DIELECTRIC HV3+ BOOT

A Class 3 AC (EN 50321-1:2018) electrically insulating dielectric boot with an integral steel toe cap and slip resistant vulcanised rubber sole. The Workmaster™ Dielectric HV3+ boot allows high-voltage live working at up to 26.5kV with every boot tested at 30kV.

- Meets the requirements of ASTM 1117 (20kV)
 - Lightweight design for increased wearer comfort
 - Low temperature flexibility down to -40°C
 - Durable, slip resistant vulcanised rubber for maximum grip
 - Energy absorbing tunnel system in heel and ergonomic cushioning insole (removable and machine washable) for greater wearer comfort
-



Testing & Certification:



EN20345:2011 SB SRC CI HRO FO
Safety Footwear



Class 2 AC, EN13832-3:2018
Electrically Insulating Footwear

DIELECTRIC BOOT

An electrically insulating Class 2 AC (EN 50321-1:2018) dielectric boot with an integral steel toe cap and vulcanised rubber sole for superior slip resistance. This high voltage boot is suitable for use by electricians, utility engineers and live working up to 17kV.

- Every boot tested to 20kV (AC testing as standard, DC testing available on request)
 - Leakage current < 5mA at 5kV and < 18mA at 20kV
 - Meets the requirements of ASTM 1117 (20kV)
 - Blue vulcanised rubber sole for maximum grip - 30% better than a conventional safety boot sole
 - Twice the wear resistance of conventional soles
-



Testing & Certification:



EN20345:2011 SB SRC CI HRO FO
Safety Footwear



Class 2 AC, EN13832-3:2018
Electrically Insulating Footwear

CBRN OVERBOOT



A chemically protective anti-static overboot with an ambidextrous quick-don design. Tested against a broad range of hazardous chemicals and chemical warfare agents, the boot design allows it to be fastened single-handedly in less than five seconds.

- Single ambidextrous design allows the boot to be worn on either the right or left foot to speed donning & doffing
 - Manufactured from black chemically resistant Hazmax™ FPA compound and certified to EN 13832-3:2018 (Footwear protecting against chemicals)
 - Quick & easy to decontaminate
 - Designed to fit and completely cover standard military issue combat boots
-

Testing & Certification:



EN20347:2012 A FO SRA
Safety Footwear



EN13832-3:2018 A K O P Q R T
Footwear protecting against prolonged contact with chemicals.

KEMBLOK™ GLOVES



BACKGROUND:

Kemblok gloves use multiple layers of chemical barrier materials to provide excellent protection against a broad range of chemicals. They are ideal as glove liners to provide enhanced chemical protection for heavier gloves providing mechanical protection, or as a chemical protective glove in applications where only a chemical barrier is required (e.g. laboratories or spill clean up).

APPLICATIONS:

- Transferring chemicals and loading process equipment
- Filling, blending & charging of raw materials
- Opening & draining pumps, valves or lines
- Handling application and cleaning tools
- Chemical Testing
- Degreasing
- Emergency response
- Spills & leakages

KEMBLOK GLOVES



Manufactured using a seven-layer chemical barrier laminate material, Kemblok™ gloves provide excellent protection against a wide range of chemicals, viruses and micro-organisms.

- Protection against chemicals and micro-organisms to EN ISO 374-1:2016
 - Can be worn as a liner under heavier gloves providing mechanical protection
 - Lightweight & comfortable
 - Compatible with the PermaSURE® toxicity modelling smart-phone app which calculates safe working times for over 4,000 chemicals
 - Ergonomic ambidextrous design
 - Working temperature -40°C to 70°C
 - Silicone and latex free
 - REACH compliant
 - Available in three sizes (Small, Medium & Large)
-

Testing & Certification:



EN ISO 374-1:2016 - Type A

Protective gloves against chemicals & micro-organisms. Permeation Level 6 with reagents A, D, E, G, H & L



EN ISO 374-5:2016

Protective gloves against chemicals & micro-organisms. With EN ISO 374-2:2014 AQL Performance Level 3 including Viral Penetration



EN 420:2003+A1:2009

Clause 5.2, Finger Dexterity Level 5

CHEMICAL PERMEATION DATA

CHEMICAL	CAS NO.	EN 374 & EN 13832 LETTER CODE	LAMINATE VITON®	VITON®/BUTYL/ VITON®	DUPONT® TYCHEM® TK	CHEMPROTEX™ 400	CHEMPROTEX™ 300	NEOPRENE	KEMBLOK™	HAZMAX™
Acetic acid (Glacial)	64-19-7	N	6	6	6	6	6	5	6	6
Acetone	67-64-1	B	6	6	6	6	6	5	6	4
Acetonitrile	75-05-08	C	6	6	6	6	6	2	6	5
Ammonia 33%	1336-21-6	O	6		6	6	6	6	6	6
Ammonia Gas	7664-41-7		6	6	6	6	6	6	6	6
Carbon Disulphide	75-15-0	E	6	6	6	6	6		6	3
Chlorine Gas	7782-50-5		6	6	6	6	6	6	6	4
Dichloromethane	75-09-02	D	5	3	6	6	6		6	3
Diethylamine	109-89-7	G	6	3	6	6	1		6	4
Ethyl Acetate	141-78-6	I	6	5	6	6	6		6	5
Formaldehyde 37%	79-11-8	T	6	6	6	6	6	6	6	6
Heptane	142-82-5	J	6	6		6	6	2	6	6
Hydrofluoric Acid 48%	7664-39-3	S		6	6	6	6	6	6	6
Hydrogen Chloride Gas	7647-01-0		6	6	6	6	6	4	6	6
Methanol	67-56-1	A	6	6	6	6	6	6	6	6
Nitric Acid 50%	7697-37-2	M	6	6	6	6	6	6	6	6
Sodium Hydroxide 40%	1310-73-2	K	6	6	6	6	6	6	6	6
Sodium Hypochlorite 16%	7681-52-9	R				6	6	6	6	6
Sulphuric Acid 50%	7664-93-9	L				6	6	6	6	6
Sulphuric Acid 96%	7664-93-9		6	6	6	6	6	5	6	6
Tetrahydrofuran	109-99-9	H	6	2	6	6	2		6	4
Toluene	108-88-3	F	6	6	6	6	4		6	5

Normalised breakthrough results for each material are given with the EN Class number (EN 16523), see key below for breakthrough times. Full details and further permeation results are at respirex.com

Class 6	>480 mins	Class 5	>240mins	Class 4	>120mins		<10mins
Class 3	>60 mins	Class 2	>30 mins	Class 1	>10 mins		Not tested

Chemicals in **bold** are the 15 standard test chemicals defined in EN943-2:2002

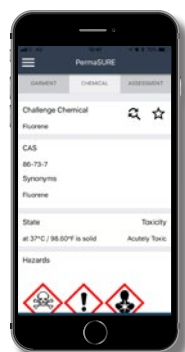
PermaSURE® Toxicity Modeller

PermaSURE® is a toxicity modelling app for Respirex™ Kemblok™ gloves and chemical protective suits made from Chemprotex™ fabrics. Using the latest modelling techniques, the PermaSURE® app calculates your safe working time based on the chemical you are working with, the PPE you are using and the working temperature.

The advantages of PermaSURE® are:

- Models low-level, but potentially-significant, permeation before breakthrough.
- Takes account of the toxicity of the substance when calculating a safe working time

Full details on PermaSURE® are available at respirex.com





RESPIREX™

Living + Breathing Personal Protection

FIND OUT MORE

For more details on our range of personal protective clothing call us on
+44 (0)1737 77 86 00 or visit our website:

www.respirex.com