

# ONE-PIECE SUIT

## REUSABLE CHEMICAL PROTECTIVE WORKWEAR



RESPIREX™

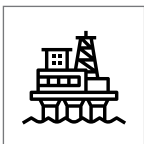
### Description

Reusable chemical protection one-piece suits are available in a wide range of fabrics to provide the best possible protection in numerous industries.

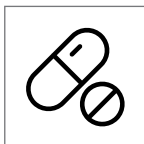
Suits feature **nylon coarse tooth zips** and a choice of hook and loop fastener or press stud fastening **zip flaps**. Zip can be central or from thigh to collar.

Our reusable workwear is designed to be **laundered in commercial washing machines** (see user instructions for laundering guidelines), ensuring a **lower overall lifetime cost of ownership** than the equivalent number of single use garments.

### Applications



Petro-  
Chemical



Pharma-  
ceutical



### Certification



**Type 3\*** | EN14605:2005+A1:2009  
Liquid-Tight Chemical Protective Clothing



**Type 4** | EN14605:2005+A1:2009  
Spray-Tight Chemical Protective Clothing

*\*Respirex chemical protective one-piece suits worn together with appropriate gloves and safety boots will meet the performance requirements of Type 4 (spray tight) clothing.*

*A hooded (Cowl) suit worn with an approved face mask taped to the hood, with taping at the ankles and zip, together with appropriate gloves and boots meets the requirements for Type 3 clothing*

### Fabrics

- Viton®/Butyl/Viton® (VBV) - Orange or Black
- Viton®/Butyl/Polyester (VBP) - Yellow
- Butyl - Olive
- Neoprene - Yellow or fluorescent orange (yellow Neoprene pictured above)
- PVC - Yellow or Green

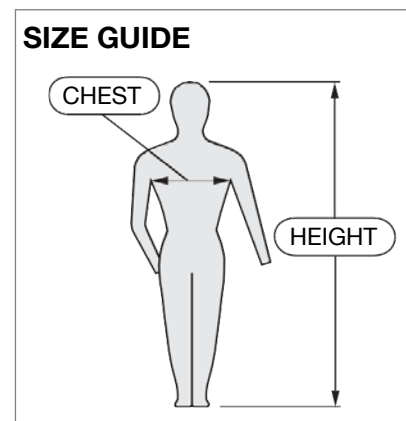
### Product Documentation



The CE Certificate, Declaration of Conformity and user instructions can all be downloaded from the product page on the Respirex website, links are in the downloads tab.

## Sizing

Size	Chest (cm)	Height (cm)
Small	88-96	164-170
Medium	96-104	170-176
Large	104-112	176-182
X-Large	112-124	182-188
XX-Large	124-136	188-194



## Material Performance

		VBV	VBP	Butyl	Neoprene	PVC C2
Abrasion Resistance	EN 530 Method 2	> 2,000	> 2,000	> 2,000	> 2,000	> 2,000
Flex Cracking Resistance	EN ISO 7854 Method B	> 100,000	> 40,000	> 15,000	> 5,000	> 100,000
Tear Resistance	EN ISO 9073-4	> 100 N	> 40 N	> 60 N	> 40 N	> 100 N
Tensile Strength	EN ISO 13934-1	> 1,000 N	> 500 N	> 500 N	> 500 N	> 500 N
Puncture Resistance	EN 863	> 100 N	> 50 N	> 50 N	> 10 N	> 50 N
Resistance to Ignition	EN 13274-4 Method 3	Pass	Pass	Pass	Pass	Pass
Seam Strength	EN ISO 13935-2	> 500 N	> 500 N	> 300 N	> 500 N	> 500 N

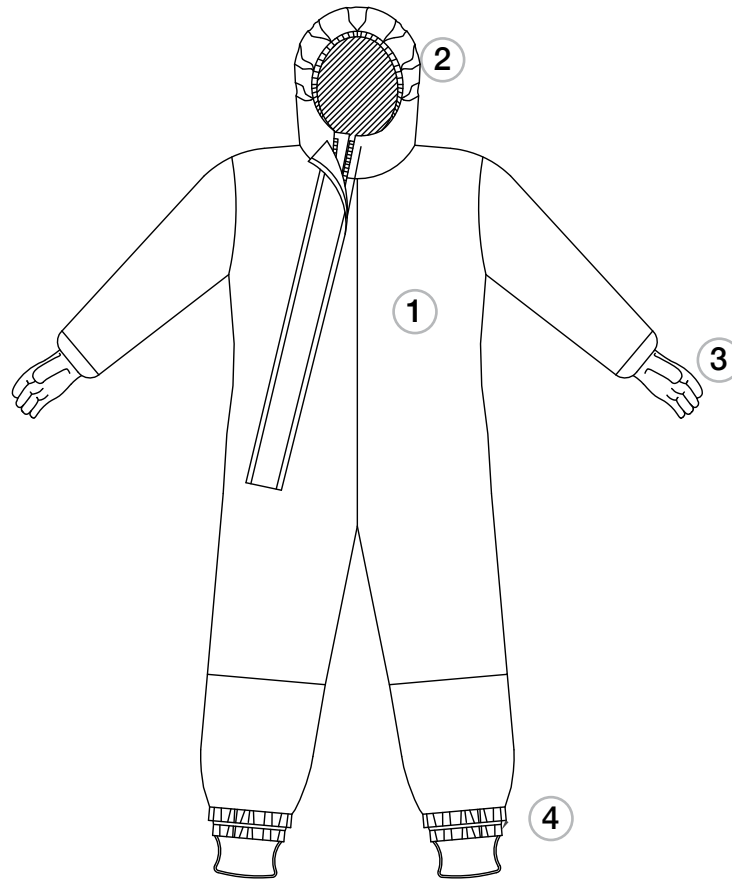
## Chemical Permeation

	CAS NO.	VBV	VBP	Butyl	Neoprene	PVC C2
Hydrochloric acid, 36%	7647-01-0	> 480 mins	> 480 mins		> 480 mins	> 480 mins
Hydrofluoric acid 48%	7664-39-3	> 480 mins	> 480 mins	> 480 mins	> 480 mins	> 480 mins
Hydrofluoric acid 73%	7664-39-3	> 480 mins			> 240 mins	< 30 mins
Nitric acid, 10%	7697-37-2				> 480 mins	> 480 mins
Nitric acid, 60% - 70%	7697-37-2	> 480 mins	> 480 mins	> 480 mins	> 480 mins	< 30 mins
Phosphoric acid,85%	7664-38-2		> 480 mins	> 480 mins	> 480 mins	> 480 mins
Sodium hydroxide, 40%	1310-73-2	> 480 mins	> 480 mins	> 480 mins	> 480 mins	> 480 mins
Sulphuric acid 10% - 50%	7664-93-9		> 480 mins	> 480 mins	> 480 mins	> 480 mins
Sulphuric acid 96%	7664-93-9	> 480 mins	> 480 mins	> 240 mins	> 240 mins	> 60 mins



A garments resistance to chemical permeation depends on the material selected. A selection of common industrial chemicals is shown in the table above, but for the full list please check the Respirex permeation guide - visit [www.respirex.com](http://www.respirex.com) or scan the QR code.

# Specifying a One-Piece Suit



## 1 Choose the material

Select the material for the suit based in its permeation resistance to your challenge chemical(s) and its physical properties. Options available are Viton®/Butyl/Viton® (VBV), Viton®/Butyl/Polyester (VBP), Butyl, Neoprene (yellow or orange) and PVC

## 2 Choose the hood or collar style

Choose the style of hood or collar for the suit to match the application and for compatibility with other items of PPE to be worn (e.g. hard hat, goggles, facemask or air fed-hood)

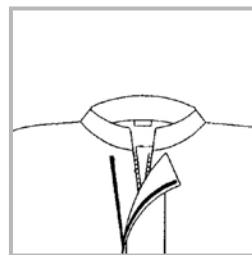
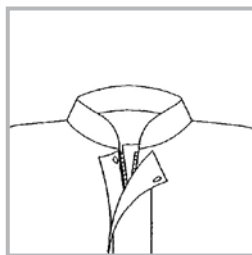
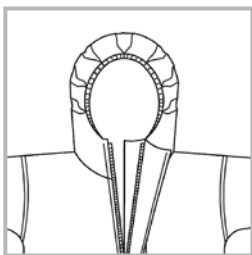
Elasticated Hood

Draw-String Hood

Mandarin Collar

Short 2" Collar

Squared Collar



## 3 Choose the cuff type

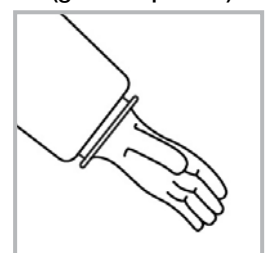
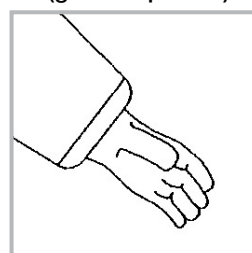
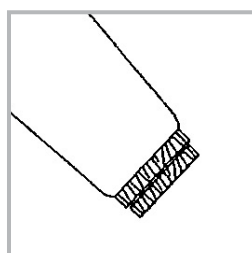
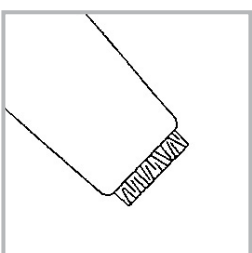
Choose the cuff for the suit based on the application and level of risk.

Elasticated cuff

Double elasticated cuff

Soft cuff and cones (gloves optional)

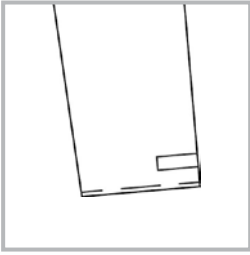
Locking cuff (gloves optional)



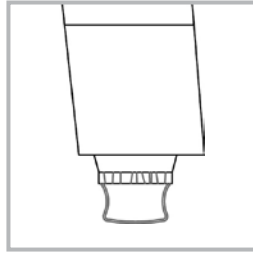
#### 4 Choose the leg type

Choose the style of leg for the suit based on the application and level of risk

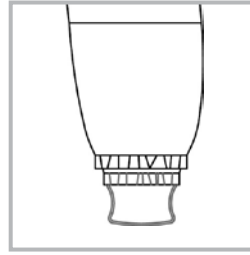
Plain leg with  
Hook & loop fastening  
adjuster



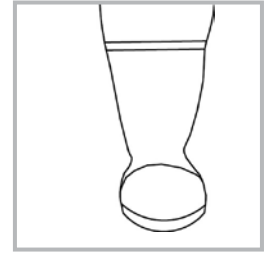
Elasticated inner  
ankle with stirrup,  
plain outer



Double elasticated  
ankle with stirrup on  
inner



Detachable Hazmax™  
safety boots



#### 5 Customisation

Finally, specify any customisation options - this includes lettering/ID numbers, press stud fasteners (rather than hook & loop) pockets and reinforcing patches.

## Specifications

	One-Piece Suit
Carton Qty	5
Outer Carton Size	40 x 40 x 84 cm
Outer Carton Weight (max)	17.2 kg
Commodity Code	39262000 (PVC), 40159000 (VBV, VBP, Butyl & Neoprene)

*Specifications are based on an XL sized suit without optional accessories and are for guidance only, exact weight will vary depending on size, material and options chosen*

*Specifications, configurations and colours are subject to change without notice. Vitor® is a trademark or registered trademarks of E.I. du Pont de Nemours and Company*



# RESPIREX™

Living + Breathing Personal Protection

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