

# Chemmaster Chemsol

Protective Clothing against Liquid Chemicals

Clothing with Liquid-tight, (Type 3) and/or Spray-tight, (Type 4) Connections Including Clothing Providing protection to Parts of the Body Only, (Type PB (4))

EN 14605:2005+A1:2009

CE 0598

Refer to User Instruction



## Body Measurements (CM)

Garment Sizes (Refer to garment size label)

### SIZING - (Wearer's Measurements)

#### Standard Garments Sizes

- Boilersuits/Jackets/Trousers

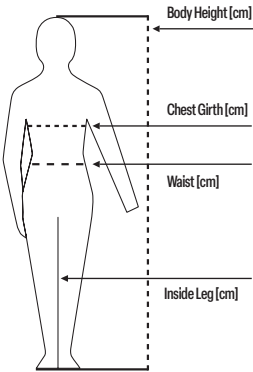
Size	Body Height (cm)	Chest (cm)	Waist (cm)	Inside Leg (cm)
<b>S</b>	166-170	90-98	81-89	73
<b>M</b>	170-174	98-106	89-97	75
<b>L</b>	174-179	106-114	97-104	78
<b>XL</b>	179-184	114-122	104-112	81
<b>2XL</b>	179-184	122-130	112-120	81
<b>3XL</b>	179-184	130-138	120-128	81
<b>4XL</b>	179-184	138-146	128-136	81

Alpha Solway Limited make the statement that they also manufacture garments to size designations out-with these standard sizes, (e.g. Extra Small, 5XL etc.), and also provide their customers with the facility to order products with dimensions to their own bespoke size.

### Standard Garments Dimensions (Chemmaster only)

- Aprons/Sleeves

Product	Code (Colour)	Length	Width
<b>Apron</b>	CMA 36/24	36" 91 cm	24" 61 cm
<b>Apron</b>	CMA 42/36	42" 106 cm	36" 91 cm
<b>Apron</b>	CMA 48/36	48" 122 cm	36" 91 cm
<b>Sleeves</b>	CMS 15	15" 38 cm	- -



## Wash Care Symbols

(Refer to garment care label)

	Do not wash/Ne prati/He неперте/Ne prati/Výrobek se nesmí práť/Må ikke vaskes/Niet wassen/Ei tohi pesta/Vesipesu kielletty/Ne pas laver/Nicht waschen/Na μην πλένεται/काच न करे/Nem mosható/Non lavare/Nemazgát/Neskalbiti/Tahsil/Må ikke vaskes/Nie prać/Não lavar/A nu se spăla/He стирать/Неперте/Ne perite/No lavar/Får inte tvättas/Yıkamayın/لا تستخدم الميضي
	Do not bleach/Ne izbjeljivati/He избелявайте/Ne izbjeljivati/Výrobek se nesmí bělit/Må ikke bleges/Niet bleken/Ei tohi valgendada/Valkaisu kielletty/Ne pas blanchir/Nicht bleichen/Na μην λευκάζεται/काच न करे/Nem fehérítendő/Non candeggiare/Nebalínat/Nebalinti/Tužax bleach/Må ikke bleges/Nie wybielać/Não usar lixívia/A nu se utiliza înalbitor/He отбеливать/Небелите/Ne belite/No usar lejia/Får inte blekas/Ağartmayın/لا تستخدم المبيض
	Do not tumble dry/Ne sušiti u sušilici/He сушить в сушильня/Ne sušiti u sušilici/Výrobek se nesmí sušit v bubnové sušičce/Må ikke tørretumbles/Niet in de droogtrommel drogen/Ei tohi kuivatada ja väänata/Rumpukuivaus kielletty/Ne pas sécher au sèche-linge/Nicht im Trockner trocknen/Na μην στεγνώνεται στο στεγνωτήριο/डबल ड्राई न करे/Nem szárítható gépben/Non asciugare in asciugatrice/Neževät centrifüga/Nedžiovinti džiovnykľe/Tužax fit-tumble dryer/Må ikke tørkes i trommel/Nie suszyć w suszarnce bębnowej/Não secar na máquina/A nu se usca în uscător/Машинная сушка запрещена/Neusušte v bubnové sušičke/Ne sušite v sušilniku/No usar secadora/Får inte torktumlas/Kurutma makinesinde kurutmayın/لا تستخدم المجفف
	Drip Line Dry in The Shade
	Do not iron/Ne peglati/He гладите/Ne glažati/Výrobek se nesmí žehlit/Må ikke strykes/Niet strijken/Ei tohi triikida/Silitys kielletty/Ne pas repasser/Nicht bügeln/Na μην σιδερώεται/आयरन न करे/Nem vasalható/Non strirare/Negudināt/Nelyginti/Tghadid bil-hadida tal-moghdiġa/Må ikke strykes/Nie prasować/Não passar a ferro/A nu se călca/He гладить/Nežehlite/Ne likajte/No planchar/Får inte strykas/Ütülmeysin/لا توكي
	Do not dry clean/Ne čistiti hemijskim putem/He използвайте химическо чистене/Ne kemijski čistiti/Výrobek se nesmí chemicky čistit/Må ikke renses/Niet chemisch laten reinigen/Ei tohi kemilliselt puhastada/Kemiallinen pesu kielletty/Ne pas nettoyer à sec/Nicht chemisch reinigen/Очи стегново καθόρισμα/इन्हें स्लीन न करे/Nem vegytisztítható/Non lavare a secco/Nemazgát kímiská trítavá/Nevalyti sausuoju būdu/Tužax id-dry clean/Må ikke renses/Nie czyścić chemicznie/Não lavar a seco/A nu se curăța chimic/Химическая чистка запрещена/Nečistite chemicky/Ne čistite na suho/No lavar en seco/Får inte kemtvättas/Kuru temizleme yapmayın/لا تستخدم التنظيف الجاف

## EN Instructions for use

**INTRODUCTION:** These garments are re-usable chemical protective clothing manufactured to meet the requirements of PPE Regulation (EU) 2016/425 and of the following Harmonised European Standard(s): EN 14605:2005+A1:2009 [Protective Clothing Against Liquid Chemicals.] These garments are manufactured under ISO 9001 quality control procedures. Bag and garment labels indicate product type/code. The determination of the suitability of these garments for the intended application should be made by trained and qualified safety personnel and is the users final responsibility.

**APPLICATION:** These garments provide the wearer with protection against liquid chemicals, for a limited time. These garments will protect only those parts of the body that they cover. When these garments are used in conjunction with other PPE, (e.g. Respirators, Gloves, Boots, Hoods, etc.), the connections should be sealed with a 'Chemical' tape. While the use of a combination of partial body protection products can afford a degree of full body protection it is recommended that, in areas where full body protection is required, a one-piece suit should be worn.

**USAGE:** All PPE should be donned/doffed in an area away from any potential risk. Before use, the wearer should ensure that the clothing has been thoroughly cleaned, following any previous usage, and that the materials, seams and closures are inspected to ensure that the protection offered by the garment will meet the conditions for safe use. When using this garment with other PPE, (e.g. Respirators, Gloves, Boots, etc.). Ensure that any respirator being used is properly fitted prior to raising the hood, (if applicable). Ensure that the Sleeves and Legs are worn over any Gloves or Boots being used. Before entering the hazardous area, all closures should be fastened and all openings/closures and connections, to other PPE, should be secured, using an appropriate 'Chemical' tape. In the event of leakage or damage to the garment during use, the wearer should immediately leave the hazardous area and remove the garment. After use, to remove contamination, the garment should be RINSED DOWN with cold water, and subsequently, allowed to Drip Line Dry, in the shade, clear of UV sources.

**WARNINGS:** Fabrics used in the construction of these garments have low air permeability and can cause heat stress. Frequent rest is advised. These garments should be used by persons who are trained and aware of the dangers relating to the work being performed. Flammable material - Keep away from fire. If this garment is damaged in any way, or is still contaminated after being rinsed down, its use should be discontinued and the garment disposed of at the earliest opportunity. When disposing of used chemical protective clothing, we recommend it be treated as harmful and disposed of as hazardous waste in accordance with national/local regulations. Garments fitted with a drawcord should not be used where there is a risk that the drawcord could be caught up by a moving object during use. The lifetime of the garment is not only effected by its exposure to chemicals but will also depend on usage, care, storage, etc.

**MAINTENANCE:** It is recommended that the wash care instructions, as detailed on the care label, are followed. After use, to remove contamination, this garment should be RINSED DOWN with cold water, and subsequently, allowed to Drip Line Dry, in the shade, clear of UV sources. Advice: For reasons of hygiene the garment should, preferably, be worn by the same person.

**STORAGE:** It is recommended that new garments are stored in their original packaging and clear of UV sources. Following use, and after having been RINSED DOWN and DRIED, the garment should be stored in a cool, dry and clean environment - always hang to avoid creases.

### EXPLANATION OF LABEL SYMBOLS/PICTOGRAMS

	<b>Chemical Protective Clothing, [Re-Usable Protection]</b> EN 14605:2005+A1:2009 Clothing With Liquid-Tight, [Type 3], And/ Or Spray-Tight, [Type 4], Connections, Including Clothing Providing Protection To Parts of the Body [Type PB [4]].		<b>Type 4: Spray-Tight Clothing</b> EN 14605:2005+A1:2009 Note: Applies To All Boilersuits
	<b>Type 3: Liquid-Tight Clothing</b> EN 14605:2005+A1:2009 Note: Applies To Boilersuits, [With Hood], Only.		<b>Refer to User Instructions</b>

**DISCLAIMER:** Alpha Solway and its distributors cannot accept responsibility for improper use of this garment.

**FURTHER INFORMATION:** Should you require any assistance or further technical information regarding this garment, please phone the Company at the telephone number provided and ask for the Sales Department.

**TYPE-EXAMINATION CERTIFICATE (MODULE B1)** - Issued by: CCQS Certification Services Ltd., Block 1, Blanchardstown Corporate Park, Ballycoolin Road, Blanchardstown, Dublin 15, Ireland. [EU Notified Body No. 2834].

**QUALITY CONTROL SYSTEM CERTIFICATE (MODULE D1)** - Issued By: SGS Fimko Oy, Takomitie 8, FI-00380 HELSINKI, Finland. [EU Notified Body No. 0598].

**ECONOMIC OPERATOR [EU]:** Globus EMEA Ltd., 51 Dawson Street, Dublin, D02 AN25, Ireland.

**DECLARATION OF CONFORMITY:** The Declaration of Conformity can be accessed online; <https://gg-doc.com/alpha-solway>.

### PERFORMANCE DATA

#### MATERIAL/GARMENT PERFORMANCE DATA [EN 14605:2005+A1:2009]

TEST	STANDARD	CHEMMASTER RANGE GARMENTS		CHEMSOL RANGE GARMENTS	
		PERFORMANCE	CLASSIFICATION	PERFORMANCE	CLASSIFICATION
Abrasion Resistance	EN 530, Method 2	>2,000 Cycles	Class 6	>2,000 Cycles	Class 6
Flex Cracking Resistance	EN ISO 7854, Method B	>100,000 Cycles	Class 6	>100,000 Cycles	Class 6
Tear Strength [Trapezoidal]	EN ISO 9073-4	>20N	Class 2	>40N	Class 3
Tensile Strength	EN ISO 13334-1	>250N	Class 4	>100N	Class 3
Puncture Resistance	EN 863	>10N	Class 2	>10N	Class 2
Seam Strength Seam Strength [Lowest*] [Hood/Crown] Seam-ONLY	EN ISO 13335-2	>300N Lowest*: >125 N	Class 5 Lowest*: Class 4	>125 N Lowest*: >75 N	Class 4 Lowest*: Class 3
Boilersuit [With Collar or Hood] Penetration by Liquids -[Type 4: Spray Test]	EN ISO 17491-4	PASS	-	PASS	-
Boilersuit [With Hood] Penetration by Liquids -[Type 3: Jet Test]	EN ISO 17491-3	PASS	-	PASS	-

**NOTE 1: BOILERSUITS ONLY** - Whole suit type testing EN ISO 17491-4 and EN ISO 17491-3 have been conducted with face, wrists, ankles and all openings/closures sealed with a 'Chemical' Tape.

#### RESISTANCE TO PERMEATION BY LIQUIDS [EN ISO 6529]

#### BREAKTHROUGH TIME [MINS.]/ CLASSIFICATION [EN 14325:2004] [EN 14605:2005+A1:2009]

CHEMICAL	CONCENTRATION	CHEMMASTER RANGE GARMENTS		CHEMSOL RANGE GARMENTS	
		FABRIC	SEAM	FABRIC	SEAM
Sodium Hydroxide [NaOH]	aq.50wt. %	>480 mins. / Class 6	>480 mins. / Class 6 Lowest*: >480 mins. / Class 6*	>480 mins. / Class 6	>480 mins. / Class 6 Lowest*: >480 mins. / Class 6*
Nitric Acid [HNO <sub>3</sub> ]	aq.50wt. %	>480 mins. / Class 6	>480 mins. / Class 6 Lowest*: >480 mins. / Class 6*	>60 mins. / Class 3	>60 mins. / Class 3 Lowest*: >60 mins. / Class 3*

**NOTE 2:** Other chemicals have been tested. Please contact supplier for further information.

**NOTE 3:** For other chemicals, breakthrough times on seams may differ from those on the fabric.

#### MATERIAL PERFORMANCE DATA [EN ISO 13688:2013 (EN 340:2003 \*)]

TEST	STANDARD	CHEMMASTER RANGE GARMENTS		CHEMSOL RANGE GARMENTS	
		REQUIREMENT	RESULT	REQUIREMENT	RESULT
Innocuousness - pH	ISO 3071	3.5<pH<9.5	PASS	3.5<pH<9.5	PASS
Innocuousness - AZO Colourants	EN 14362-1	None Detected	PASS	None Detected	PASS
Dimensional Change to Cleaning/Washing	EN ISO 5077	LD = Max. +5.0% TD = Max. +5.0%	PASS	LD = Max. +5.0% TD = Max. +5.0%	PASS
Colour Fastness to Perspiration <sup>1</sup>	EN ISO 105-E04	At Least 4	PASS	At Least 4	PASS
Available Colours			GREEN		GREEN

**KEY:** LD = Longitudinal Direction; TD = Transverse Direction

**NOTE 4:** <sup>1</sup>The 'Colour fastness to Perspiration' has been tested because the EN 14605:2005+A1:2009 still references the EN 340:2003 standard rather than the EN ISO 13688:2013 standard that superseded it. The EN ISO 13688:2013 standard no longer requires this test to be performed.

**NOTE 5:** All tests were performed independently and are a reflection of the performance of the fabric/garment in controlled laboratory conditions. Results are not intended to give any idea of the "safe use" for the garment.

#### US TESTING DATA [CHEMMASTER PRODUCTS ONLY]

TEST	STANDARD	PERFORMANCE
Basis Weight - Mass/Unit Area	ASTM D3776/D3776M-20, Option C	380g/m <sup>2</sup>
Resistance To Penetration - Sodium Hydroxide (aq. 50% w/w)	ASTM F903-18, Procedure A	Pass
Resistance To Penetration - Hydrochloric Acid (aq. 37% w/w)	ASTM F903-18, Procedure A	Pass
Resistance To Penetration - Sodium Hypochlorite (aq. 15% w/w)	ASTM F903-18, Procedure A	Pass