EU TYPE-EXAMINATION CERTIFICATE
Regulation (EU) 2016/425, MODULE B
0598/PPE/23/3786 Issue 1

Product	Chemical Protective Clothing
Model	Type 3 & 4 Chemical Protective Coveralls, model NUB0642 - NUB0542 - NUB0442 - NUB0342 - NUB0242
Trademark	-
Certificate Holder / Manufacturer	Por confidencialidad los datos del proveedor de los productos incluídos en este certificado no se encuentran a la vista. De requerirlos solicítelos a servicioalcliente@depascale.com.ar
	Product complies with the applicable essential health and safety requirements of Regulation (EU) 2016/425 and standard(s) mentioned below
Standard(s)	EN ISO 13688:2013+A1:2021 (Protective clothing - General requirements); EN 14605:2005+A1:2009* (Types 3 & 4: Full body protective clothing against liquid chemicals with liquid-tight & spray-tight connections); EN 1149-5:2018 (Protective clothing - Electrostatic properties. Material performance and design requirements), with a surface resistance of ≤ 2.5 x 10^9 Ω. * in conjunction with EN 14325:2018 for all properties, except chemical permeation which is classified using EN 14325:2004 (Protective clothing against chemicals - Test methods and performance classification of chemical protective clothing materials, seams, joins and assemblages).
Other Information	This certificate shall be used in conjunction with conformity assessment procedure module C2 or D.
Validity	This certificate is valid until 2028-09-19.
Date of issue	2023-09-19
	SGS Fimko Ltd
Signature	

SGS Fimko Ltd is a Notified Body (0598) according to the Personal Protective Equipment Regulation (EU)

SGS Fimko Ltd
Takomotie 8, FI-00380 Helsinki, Finland
t. +358 9 696 361 www.sgs.fi
Business ID 0978538-5 Member of the SGS Group (SGS SA)

Additional information

Type 3 & 4 Chemical Protective Coveralls (single-use), model NUB0642 - NUB0542 NUB0442 - NUB0342 - NUB0242 Manufactured from a yellow polyethylene film coated polypropylene nonwoven material (75 gsm), with stiched then over-taped yellow seams. The coverall has a 3-piece hood with an elasticated facial opening, elasticated waist (back), cuffs & ankles. The front zipper is covered by a flap with integral self-adhesive tape. Available in seven nominal size: S - 4XL.

Contract No: SSL-CERT230800199-01 / GB-202308004259.

Technical File: Type 3 & 4 Chemical Protective Coveralls / NUB0642 - NUB0542 - NUB0442 - NUB0342 - NUB0242. Version 1, dated: 2023-9-6.

According to the thest report: SL52315292300401TX

FINAS
Finnish Accreditation Service
S003 (EN ISO/IEC 17065)

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The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description	:	(A)Type 3 & 4 Chemical Protective Coverall
Sample Color	:	(A)Yellow
Composition	:	(A)PP + PE
Sample Dimension/Size	:	XL
Style No.	:	NUB0642 - NUB0542 - NUB0442 - NUB0342 - NUB0242
Proposed Care Instruction	:	-
Test Performed	:	Selected test(s) as requested by applicant
Sample Receiving Date	:	Jun 19, 2023
Testing Period	:	Jun 21, 2023 - Jul 07, 2023
Test Result(s)	:	Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd

Sara Guo (Account Executive)

SGS does not verify authenticity of any Brand/Trademark of products. Buyers must check if the product is genuine with the Brand/Trademark owner directly.

Protective Clothing- Electrostatic Properties- Part 5: Material Performance and Design requirements (EN 1149-5:2018)

Conclusion	A	Remark
Clause 4.2.1 Electrostatic Material Requirements	PASS	

Protective Clothing - General Requirements (EN ISO 13688:2013+A1:2021)

Conclusion	A	Remark
EN ISO 13688:2013+A1:2021 Clause 4.2 Azo Dyes	PASS	
EN ISO 13688:2013+A1:2021 Clause 4.2 pH Value of Aqueous Extract	PASS	
EN ISO 13688:2013+A1:2021 Clause 4.2 Nickel Release	PASS	
EN ISO 13688:2013+A1:2021 Clause 4.3 & 4.4 Design and Comfort (Ergonomic)	PASS	

Remark(s) : PASS=Meet General Requirement

Comment

	EN 14605:2005+A1:2009 (Type 3)	EN 14605:2005+A1:2009 (Type 4)
Abrasion Resistance	Class 3	Class 3
Compression-Folding (Schildknecht) Flex Cracking Resistance	Class 3	Class 3
Trapezoidal Tear Resistance	Class 3	Class 3
Tensile Strength	Class 2	Class 2
Puncture Resistance	Class 2	Class 2
Resistance to Permeation by Chemicals for Materials-Fabric	Class 6	Class 6
Resistance to Permeation by Chemicals for Materials-Seam	Class 6	Class 6
Seam Strength	Class 4	Class 4
Whole Suits Testing	Pass	Pass

Remark: Pass = Meet Relative Standard Requirement

3rd Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 t (86-21) 61402666 f (86-21) 64958763 www.sgsgroup.com.cn
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com

COMPONENT LIST / List of Materials

Sample No.	Component No.	Description	Color	Remark
A	1	Body	Yellow	
A	2	Tape	Yellow	
A	3	Zipper	White	

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3rd Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 t (86-21) 61402666 f (86-21) 64958763 www.sgsgroup.com.cn
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com

Test Result

Protective Clothing- Electrostatic Properties- Part 5: Material Performance and Design requirements
EN 1149-5:2018

Clause 4.2.1 Electrostatic Material Requirements

(EN 1149-1:2006;Test Condition: Applied Voltage and time: 100V for 15 seconds
Temperature: 23±1°C; Relative Humidity: 25±5%)

A	Unit	Face Side	Requirement
As Received			
Surface Resistance	Ω	8.1x10^7	Max.2.5x10^9 Ω on at least one surface

Protective Clothing - General Requirements
EN ISO 13688:2013+A1:2021

EN ISO 13688:2013+A1:2021 Clause 4.2 Azo Dyes (Direct Reduction & Colorant Extraction)
Textile: According to EN ISO 14362-1:2017 – Analysis was conducted with GC-MS/HPLC-DAD.

Test Item(s)	CAS-No	Result (mg/kg)			
		1		2	
		Direct Reduction	Colorant Extraction	Direct Reduction	Colorant Extraction
4-Aminobiphenyl	92-67-1	ND	ND	ND	ND
Benzidine	92-87-5	ND	ND	ND	ND
4-Chlor-o-toluidine	95-69-2	ND	ND	ND	ND
2-Naphthylamine	91-59-8	ND	ND	ND	ND
o-Aminoazotoluene	97-56-3	ND	ND	ND	ND
5-Nitro-o-Toluidine/2-Amino-4-Nitrotoluene	99-55-8	ND	ND	ND	ND
4-Chloroaniline	106-47-8	ND	ND	ND	ND
4-Methoxy-m-Phenylenediamine/2,4-Diaminoanisole	615-05-4	ND	ND	ND	ND
4,4'-Diaminodiphenylmethane, MDA	101-77-9	ND	ND	ND	ND
3,3'-Dichlorobenzidine	91-94-1	ND	ND	ND	ND
3,3'-Dimethoxybenzidine	119-90-4	ND	ND	ND	ND
3,3'-Dimethybenzidine	119-93-7	ND	ND	ND	ND
4,4'-methylenedi-o-Toluidine/3,3'-Dimethyl-4,4'-Diaminodiphenylmethane	838-88-0	ND	ND	ND	ND
p-Cresidine	120-71-8	ND	ND	ND	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	ND	ND	ND	ND
4,4'-Oxydianiline	101-80-4	ND	ND	ND	ND
4,4'-Thiodianiline	139-65-1	ND	ND	ND	ND
o-Toluidine	95-53-4	ND	ND	ND	ND
4-Methyl-m-Phenylenediamine/2,4-Toluylendiamine, TDA	95-80-7	ND	ND	ND	ND

2,4,5-Trimethylaniline	137-17-7	ND	ND	ND	ND
4-Aminoazobenzene	60-09-3	ND	ND	ND	ND
O-Anisidine	90-04-0	ND	ND	ND	ND
Conclusion		**PASS**	**PASS**	**PASS**	**PASS**

Requirement: ND

Note:
ND = Not Detected
Reporting Limit = 5 mg/kg (for individual compound)
Remark:
+Direct reduction refers to the extraction and reduction according to EN ISO 14362-1:2017 clause 10.2 and relevant clauses.
+Colorant extraction refers to the colourant extraction and subsequent reduction according to ISO 14362-1:2017 Clause 10.1 and relevant clauses

4-Aminodiphenyl (CAS No. 92-67-1), 2-Naphthylamine (CAS No. 91-59-8) and 2,4-Diaminoanisole (CAS No. 615-05-4) can be indirectly generated from some colorants which do not contain these amines azo bound. The use of banned azo colorants cannot be reliably ascertained without additional information.

In case PU is used, e.g. PU Foams or coatings, it cannot be ruled out that MDA (CAS No. 101-77-9) and TDA (CAS No. 95-80-7) can be released from PU material, not from banned azo colorant. Similarly, for pigment prints, MDA will be released from a chemical fixing agent.

EN ISO 14362-1:2017 will enable further cleavage of 4-AAB (CAS No. 60-09-3) to non-forbidden amines: aniline and p-phenylenediamine. If aniline and/or p-phenylenediamine is not found, 4-AAB is considered as “n.d.” (i.e. <5.0 mg/kg). Otherwise, EN ISO 14362-3:2017 will be employed to verify the presence of 4-AAB.

EN ISO 13688:2013+A1:2021 Clause 4.2 pH Value of Aqueous Extract

(ISO 3071:2020;0.1mol/L KCl extraction)

-	Unit	**1**	Requirement
pH Value	-	6.6	3.5-9.5
Conclusion		**PASS**	

1. Extraction medium: KCl solution
2. pH value of extraction medium: 5.62
3. Temperature of the extraction solution: 21.2°C

3rd Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 t (86-21) 61402666 f (86-21) 64958763 www.sgsgroup.com.cn
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com

EN ISO 13688:2013+A1:2021 Clause 4.2 Nickel Release

Test Method: With reference to EN 1811:2011+ A1:2015, analysis was performed by ICP-OES.

Test Item(s)	Unit(s)	RL	3-Trial1	3-Trial2	3-Trial3	Requirement
Volume of Test Solution	mL	-	8.27	8.27	8.27	-
Sample Area	cm²	-	8.27	8.27	8.27	-
Whether performed by EN 12472:2020 or not	-	-	YES	YES	YES	-
Nickel Release	µg/cm²/ week	0.10	ND	ND	ND	0.5
Conclusion				**Pass**		

Remark: ND = Not Detected
RL = Reporting Limit

Notes: (1) NO:As Nickel is found to be positive by CEN/TR 12471:2022, simulation of wear and corrosion by the EN 12472:2020 is not performed
YES:As Nickel is found to be negative by CEN/TR 12471:2022, simulation of wear and corrosion by the EN 12472:2020 is performed
(2) Comments are given according to Annex A of EN 1811:2011+A1: 2015 as below:

Type of sample	Nickel Release (µg/cm²/week)	
	PASS	FAIL
Article with Nickel release limit of 0.5µg/cm²/week	<0.88	≥ 0.88
Article with Nickel release limit of 0.2µg/cm²/week	<0.35	≥ 0.35

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (*w*=0) stated in ILAC-G8:09/2019.

Clause 4.3 & 4.4 Design and Comfort (Ergonomic)

(EN ISO 13688:2013+A1:2021 clause 4.3 & 4.4 & Annex C)

Sample A
Sample size:XL

Item No.	Requirement	Observation Results
The ergonomic requirements of EN ISO 13688:2013, for design and wearing comfort shall be met.		
C.3	**Ergonomic assessment questions**	
C.3.1	**Clothing free from harmful features** — Inspect protective clothing manually and visually to ensure it is free from harmful features (any sharp or hard edges, protruding wire ends, rough surfaces or other items on the inner or outer surface)	Subject: Yes
C.3.2	**Protective clothing, putting on, taking off and fit** — The ease of putting on and removing the clothing with or without assistance as is appropriate for the type of clothing	Subject: Yes
	— The clothing should not be too tight for comfort and deep breathing is not restricted and there is no blood flow restriction	Subject: Yes

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	anywhere	
	— The clothing design at, for example the armholes and crotch, to check they are appropriately proportioned and positioned.	Subject: Yes
	(Information supplied by the manufacturer) Using simple practical tests, the assessor should check whether the information supplied by the manufacturer is sufficiently clear, complete and accurate so that users may be expected to use the clothing correctly, and avoid any hazardous errors in using the product.	Not assessed (To be checked during conformity assessment)
C.3.3	**Operation of closures, adjustment and restraint systems** — The adequacy of the range of adjustments available	Subject: Yes
	— The ease of operation and the security of closures and adjusters	Subject: Yes
	— Whether the closures, adjusters and restraint systems appear strong enough to withstand the forces to which they are likely to be exposed to during body movements and the tasks for which the protective clothing is intended.	Subject: Yes
C.3.4	**Coverage of the area intended to be protected, coverage maintained during movements** — The adequacy of coverage of any specified protection zones by protective material or special constructions.	Subject: Yes
	— That coverage is maintained during movements as extreme as it is anticipated a user would make.	Subject: Yes
C.3.5	**Freedom of movement** Following movements should be able to perform: — Standing, sitting, walking and stair climbing, — Raising both hands above the head, — Bending over and picking up a small object such as a pencil	Subject: Yes
	The following points should be considered: — The arms and legs of the clothing should not be so long that they interfere with hand and foot movements. — The clothing should not be so loose that it flaps about or moves independently and inconveniently. — There should not be points at which unexpected and unintended gaps open up between or within components of the clothing. — There should not be any unreasonable restriction of movement at any joint.	Subject: Yes
C.3.6	**Compatibility with other PPE from the same manufacturer** — Protective clothing that is normally worn as part of an ensemble should be compatible with representative examples of the rest of that ensemble. — Putting on and removing other items of PPE such as gloves and boots should be possible without difficulty.	Not applicable
4.3	**Design**	
4.3.1	The design of protective clothing shall facilitate its correct positioning on the user and shall ensure that it remains in place for the foreseeable period of use. Taking into account ambient factors, together with the movements and postures that wearer could adopt during the course of work or other activity. For this purpose, appropriate means, such as adequate adjustment systems or adequate size ranges shall be provided so as to enable protective clothing to be adapted to the morphology of the	Pass

	user. (See Annex C)	
4.3.2	The design of protective clothing shall ensure that no parts of the body get uncovered by expected movements by the wearer if this is defined in the specific standard. (See Annex C)	Pass
4.3.3	Where applicable, protective clothing design shall take into account other items of protective clothing or equipment from the same manufacturer which must be worn to form an overall protective ensemble. When two or more items are worn together, they should be compatible and each one shall comply with its own standard. None of them has to reduce the performance of the other item(s) and the appropriate level of protection should be provided at interface areas between those products, for example in sleeve to glove, trousers to footwear, hood and respirator combinations.	Not applicable
4.3.4	In each specific standard, a minimum mechanical property to assess the strength of a garment shall be defined.	Not assessed (To be checked in the specific standard testing)
4.4	**Comfort**	
4.4.1	Protective clothing shall not — have rough, sharp or hard surfaces that irritate or injure the user; — be so tight, loose and/or heavy so that it restricts normal movement. (See Annex C)	Pass
4.4.2	Protective clothing that imposes significant ergonomic burdens such as heat stress, or is inherently uncomfortable because of the need to provide adequate protection, shall be accompanied in the information supplied by the manufacturer by specific advice or warnings. Specific advice on the appropriate duration for continuous use of the clothing in the intended application(s) shall be given.	Not applicable

Protective Clothing Against Chemicals -Test Methods and Performance Classification of Chemical Protective Clothing Materials, Seams, Joins and Assemblages

EN 14325:2018

Clause 4.4 Abrasion Resistance

(EN ISO 12947-2:2016;Martindale Abrasion & Pilling Tester, Pressure: 9kPa, Grit 240 abrasion paper.)

A

As Received	No. 1	No. 2	No. 3	No. 4	Minimum
The quoted result(Rubs)	>100	>100	>100	>100	>100

Method for end-point determination: Pressure pot method
Recommended Class: 3
Remark:
1) Pressure pot method is used for damage assessment before and after abrasion, as given in EN 14325:2018 clause 4.4.2.2. And the maximum resultant value does not exceed 100 Pa in 1 min.
2) Hydrostatic head method is used to damage assessment after abrasion, as given in EN 14325:2018 Clause 4.4.2.3, due to the performance of the material could not be evaluated by the pressure pot method. And the average hydrostatic head is above 200mm.
3) Visual inspection is used for damage assessment after abrasion, as given in EN 14325:2018 clause 4.4.2.4,

due to the performance of the material could not be evaluated by the pressure pot method or hydrostatic head method. If the determination is performed through visual inspection, the maximum classification that can be claimed is a Class 3.
4) Classification of abrasion resistance: Class 1 >10rubs; Class 2 >40rubs; Class 3 >100rubs; Class 4 >400rubs; Class 5 >1000rubs; Class 6 >2000rubs.

Clause 4.5 Compression-Folding (Schildknecht) Flex Cracking Resistance

(EN ISO 7854:1997, Method B)

A				
As Received	No. 1	No. 2	No. 3	Minimum
Warp/Lengthwise(Cycles)	>3000	>3000	>3000	>3000
Weft/Widthwise(Cycles)	>3000	>3000	>3000	>3000

Method for end-point determination: Pressure pot
Recommended Class:3
Remark:
1) Pressure pot method is used for damage assessment before and after flex cracking, as given in EN 14325:2018 clause 4.5.2.2. And the maximum resultant value does not exceed 100 Pa in 1 min.
2) Hydrostatic head method is used to damage assessment after flex cracking, as given in EN 14325:2018 Clause 4.5.2.3, due to the performance of the material could not be evaluated by the pressure pot method. And the average hydrostatic head is above 200mm.
3) Visual inspection is used for damage assessment after flex cracking, as given in EN 14325:2018 clause 4.5.2.4, due to the performance of the material could not be evaluated by the pressure pot method or hydrostatic head method. Visual inspection shall not be used for the performance classification of Type 1 through Type 3(EN 943-1, EN 943-2, EN 14605)
4) Classification of leak tightness after compression-folding(Schildknecht) flex cracking resistance: Class 1 >500cycles; Class 2 >1250cycles; Class 3 >3000cycles; Class 4 >8000cycles; Class 5 >20000cycles; Class 6 >50000cycles.

Clause 4.7 Trapezoidal Tear Resistance

(EN ISO 9073-4:2021)

A						
As Received	No. 1	No. 2	No. 3	No. 4	No. 5	Minimum
Warp/Length Yarns Torn(N)	45.9	46.5	46.1	48.6	45.7	45.7
Weft/Width Yarns Torn(N)	61.1	70.7	76.8	61.8	67.9	61.1

Recommended Class:3
Remark:
Classification of trapezoidal tear resistance: Class 1 >10N; Class 2 >20N; Class 3 >40N; Class 4 >60N; Class 5 >100N; Class 6 >150N.

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Clause 4.9 Tensile Strength

(EN ISO 13934-1:2013;CRE - 2" Strip)

A As Received	No. 1	No. 2	No. 3	No. 4	No. 5	Minimum
Warp/Length(N)	98	91	97	92	95	91
Weft/Width(N)	140	150	150	150	150	140

Recommended Class: 2
Remark:
Classification of tensile strength: Class 1 >30N; Class 2 >60N; Class 3 >100N; Class 4 >250N; Class 5 >500N; Class 6 >1000N.

Clause 4.10 Puncture Resistance

(EN 863:1995)

A As Received	No. 1	No. 2	No. 3	No. 4	No. 5	Minimum
Puncture Force(N)	14	14	14	13	14	13

Recommended Class:2
Remark:
Classification of puncture resistance: Class 1 >5N; Class 2 >10N; Class 3 >50N; Class 4 >100N; Class 5 >150N; Class 6 >250N.

Clause 5.5 Seam Strength

(EN ISO 13935-2:2014)

A(sleeve seam) As Received	No. 1	No. 2	No. 3	Average
Each Type of Straight Seam(N)	130 (F.R)	155 (F.R)	158 (F.R)	147 (F.R)

A(inner side seam) As Received	No. 1	No. 2	No. 3	Average
Each Type of Straight Seam(N)	151 (F.R)	173 (F.R)	179 (F.R)	168 (F.R)

Recommended Class 4
Notes
F.R. = Fabric Rupture;
Remark:
Classification of seam strength: Class 1 >30N; Class 2 >50N; Class 3 >75N; Class 4 >125N; Class 5 >300N; Class 6 >500N.

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Protective Clothing against Liquid Chemicals – Liquid Tight (Type 3) or Spray Tight (Type 4)
EN 14605:2005+A1:2009

Clause 4.1 Material - Resistance to Permeation of Liquids

(ISO 6529:2013, Method A;As Received
Test cell: 1'' cell used;
Collection medium: Grade 3 water;
Frequency of scan: Every 60 seconds;
Precondition area: Temperature (20±2) ºC, RH(65±5)% for 24 hours;
Testing area temperature: 23+/-1°C;
Analytical technique: Conductivity;
System configuration: Closed-loop;
Flow rate: 100ml/min
MDPR (Minimum Detectable Permeation Rate): 0.004 μg/(min•cm^2))

A H_2SO_4, Concentration:30%, Physical state: Liquid, CAS No:7664-93-9	No. 1	No. 2	No. 3	Average
BDT(min)	0	0	0	0
Breakthrough Time BT1.0(min)	>480	>480	>480	>480
Unit Area Weight(g/m²)	75	75	78	76
Sample Thickness(mm)	0.34	0.32	0.34	0.34

Recommended Class: Class 6
Remark:
1. 1#: Material from arm area; 2#: Material from leg area; 3#: Material from body
2. BDT—Breakthrough Detection Time (in minutes), Elapsed time measured from the start of the test to the sampling time that immediately precedes the sampling time at which the test chemical is first detected;
BT1.0— Normalized Breakthrough Detection Time (in minutes) at a permeation rate of 1.0 μg/(cm2·min).
3. Pre-screening according to ISO 13994 to determine if the material is resistant to liquid penetration is not performed. Tests performed in triplicates as per materials resistant to liquids.
4. Methods for measuring the thickness and mass can be found in ISO 6529 clause 9.3
5. Classification of Resistance to permeation by chemicals (Breakthrough time) according to EN 14325: 2004 Clause 4.11 : Class 1>10 min; Class 2>30 min; Class 3>60 min; Class 4>120 min; Class 5>240min; Class 6>480min.
6. If the results of first set of three test specimens vary by no more than 20% from the average, the classification recommendation shall be based on the lowest individual result of Breakthrough time. If the results of first set of three test specimens vary by more than 20% from the average, then a second set of test specimens shall be tested to evaluate classification. If the test results did vary by more than 20% from the average in both the first and the second test set. In accordance to the standard ISO 6529 the results of both sets were combined and the highest (Breakthrough time) results discarded until the remaining results did not vary more than 20%from the average.

Clause 4.2 Seams, Joins and Assemblages - Resistance to Permeation of Liquids

(ISO 6529:2013, Method A;As Received
Test cell: 1'' cell used;
Collection medium: Grade 3 water;
Frequency of scan: Every 60 seconds;
Precondition area: Temperature (20±2) ºC, RH(65±5)% for 24 hours;
Testing area temperature: 23+/-1°C;
Analytical technique: Conductivity;
System configuration: Closed-loop;
Flow rate: 100ml/min;
MDPR (Minimum Detectable Permeation Rate): 0.004 μg/(min•cm^2))

A H_2SO_4, Concentration:30%, Physical state: Liquid, CAS No:7664-93-9	No. 1	No. 2	No. 3	Average
BDT(min)	0	0	0	0
BT1.0(min)	>480	>480	>480	>480

Recommended Class: Class 6
Remark:
1. 1#: Arm seam; 2#: Leg seam; 3#: Body seam
2. BDT—Breakthrough Detection Time (in minutes), Elapsed time measured from the start of the test to the sampling time that immediately precedes the sampling time at which the test chemical is first detected; BT1.0— Normalized Breakthrough Detection Time (in minutes) at a permeation rate of 1.0 μg/(cm2·min).
3. Pre-screening according to ISO 13994 to determine if the material is resistant to liquid penetration is not performed. Tests performed in triplicates as per materials resistant to liquids.
4. ^Methods for measuring mass is not in accordance with ISO 2286-2 and ISO 3801. The result is measured to the nearest 1 g/m2. The seam is not performed, as this would be affected by the amount of the seam exposed when specimens were cut.
5. #Methods for measuring the thickness is not in accordance with ISO 2286-3 and ISO 5084. The result is measured to the nearest 0.02mm. The seam is not performed, as this would be affected by the amount of the seam exposed when specimens were cut.
6. Classification of permeation resistance by normalized breakthrough time according to EN 14325: 2004 Clause 5.4.2: Class 1>10min; Class 2>30min; Class 3>60min; Class 4>120min; Class 5>240min; Class 6>480min.
7. If the results of first set of three test specimens vary by no more than 20% from the average, the classification recommendation shall be based on the lowest individual result of Breakthrough time. If the results of first set of three test specimens vary by more than 20% from the average, then a second set of test specimens shall be tested to evaluate classification. If the test results did vary by more than 20% from the average in both the first and the second test set. In accordance to the standard ISO 6529 the results of both sets were combined and the highest (Breakthrough time) results discarded until the remaining results did not vary more than 20%from the average.

Clause 4.3 Performance Requirements for Whole Suits-Types 3 (Jet Test)

(EN 14605:2005+A1:2009, 4.3)

A

As Received	No. 1	No. 2	No. 3
After Seven Movements	Pass	Pass	Pass
Calibrated Stain Area(cm^2)	3.58	3.58	3.58
Total Stain Area on Undergarment(cm^2)	0	0	0
Final Assessment for Whole Suit	Pass	Pass	Pass

Absorbent overall: Water absorbent nonwovens
Additional equipment: /
Test room temperature:21.5
Test liquid composition: Methyl blue, sodium lauryl ether sulphate, citric acid and water
Test liquid surface tension: $(30\pm5)*10^{-3}$ N/m
Pressure of the liquid supplied: 150 kPa
Suit size:XL
Body dimension of tested subject- Lu
Height: 180 cm, Chest girth: 118 cm
Remark:
1. Prior to testing protective suits in accordance with EN ISO 17491-3 jet test a sequence of seven movements shall be carried out by a human test subject. The test shall comprise three repetitions of the “seven movements” sequence. If the test subject is not able to perform the test due to the hindrance of the suit or if the test results in substantial damage to the suit, the suit will be considered to have failed.
2. All suits shall pass the test, i.e. the total area on any one undergarment of each suit shall be less than or equal to three times the total calibrated stain area.
3. Test spots include integral connections to the chemical protective clothing: including all different types of joins, seams, seam crossings and covered or uncovered zippers. E.g. crotch seam, back waist seam, front cross seam, front zipper, nape cross seam and armhole cross seam.

3rd Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 t (86-21) 61402666 f (86-21) 64958763 www.sgsgroup.com.cn
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com

Clause 4.3 Performance Requirements for Whole Suits-Type 4

(EN 14605:2005+A1:2009, 4.3)

A

As Received	No. 1	No. 2	No. 3
After Seven Movements	Pass	Pass	Pass
Calibrated Stain Area(cm^2)	3.58	3.58	3.58
Total Stain Area on Undergarment(cm^2)	0	0	0
Final Assessment for Whole Suit	Pass	Pass	Pass

Absorbent overall: Water absorbent nonwovens
Additional equipment: /
Test room temperature:21.2
Test liquid composition: Methyl blue, sodium lauryl ether sulphate, citric acid and water
Test liquid surface tension: $(30\pm5)*10^{-3}$ N/m
Pressure of the liquid supplied: 300kPa
Suit size:XL
Body dimension of tested subject- Lu
Height: 180 cm, Chest girth: 118 cm
Remark:
1. Prior to testing protective suits in accordance with EN ISO 17491-4 method B high-level spray test a sequence of seven movements shall be carried out by a human test subject. The test shall comprise three repetitions of the “seven movements” sequence. If the test subject is not able to perform the test due to the hindrance of the suit or if the test results in substantial damage to the suit, the suit will be considered to have failed.
2. All suits shall pass the test, i.e. the total area on any one undergarment of each suit shall be less than or equal to three times the total calibrated stain area.
3. Test spots include integral connections to the chemical protective clothing: including all different types of joins, seams, seam crossings and covered or uncovered zippers. E.g. crotch seam, back waist seam, front cross seam, front zipper, nape cross seam and armhole cross seam.

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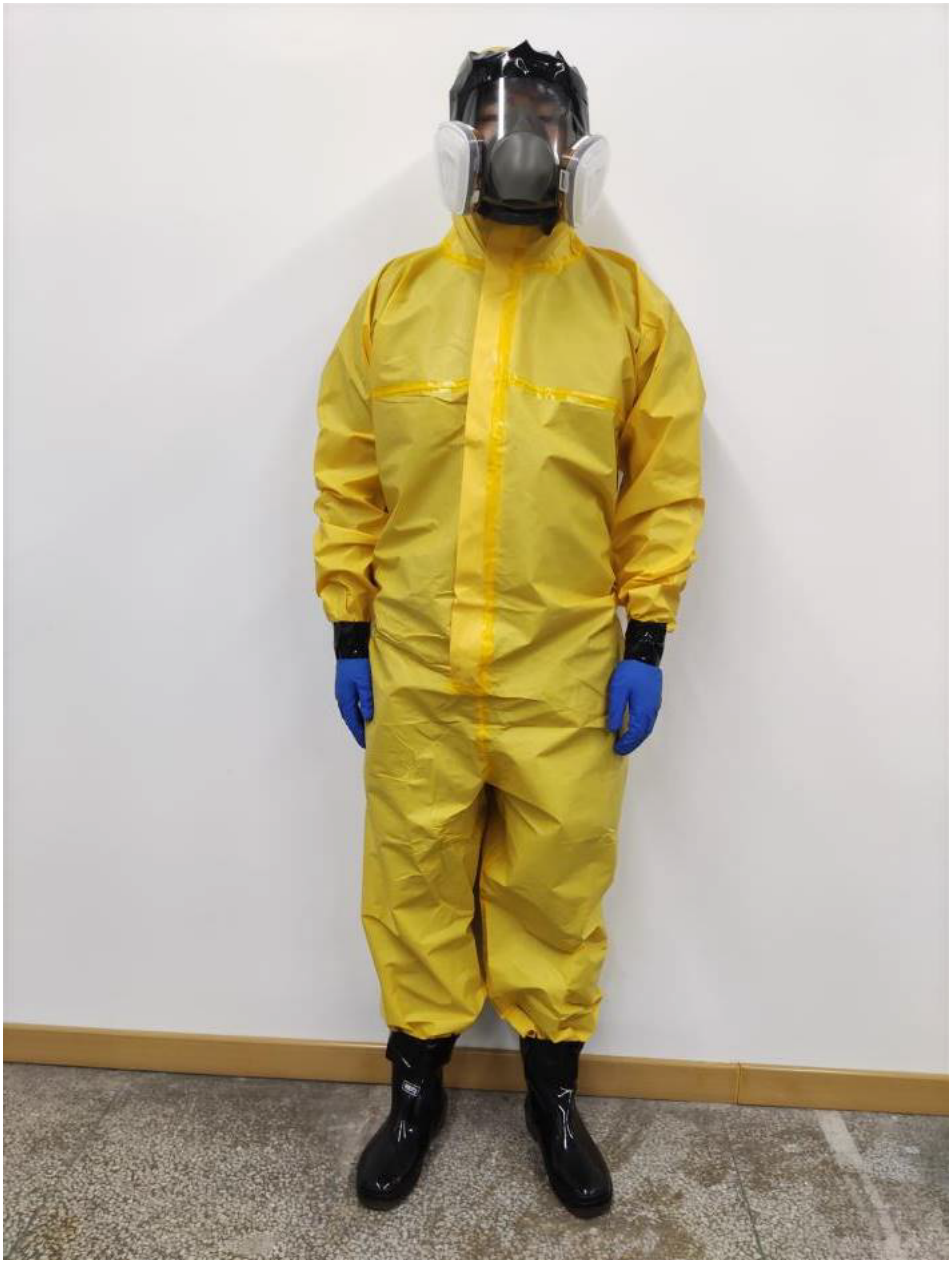
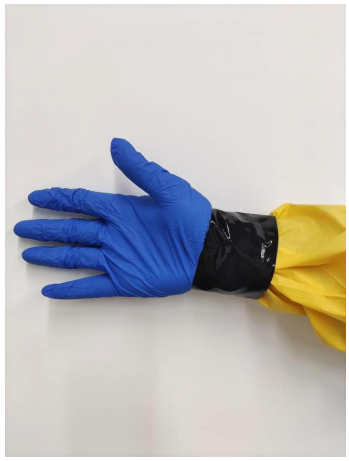
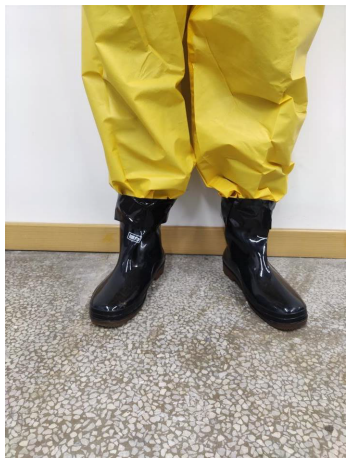
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com

Full dressed wearer for whole suit performance testing







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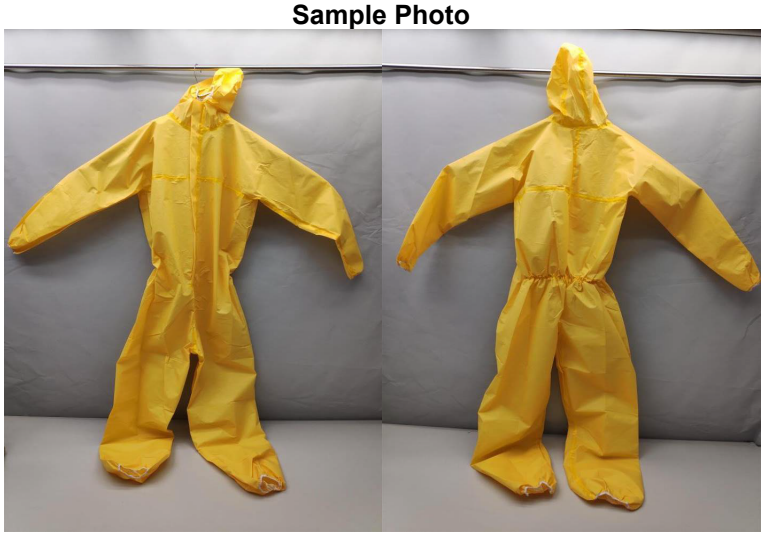
检验检测专用章 Inspection & Testing Services
3rd Building,No.889,Yishan Road,Xuhui District Shanghai,China 200233 t (86-21) 61402666 f (86-21) 64958763 www.sgsgroup.com.cn
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com

Sample Photo



Product information is provided by applicant without verification or authentication of the brand.

The statement of conformity in this test report is only based on measured values by the laboratory and does not take their uncertainties into consideration.

End of Report

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中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t (86-21) 61402666 f (86-21) 64958763 sgs.china@sgs.com