

NUMBER : TSNT01412854

Original Picture



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Applicant : Gaomishi Zhonghexiang Labor Products Industry&Trade Company

Date : Jul 26, 2021

Attn : Chi Huanliang

Sample Description:

Five (5) Pairs Of Submitted Sample Said To Be 13 Gauge Polyester/Nylon Shell Coated Latex Gloves In (A) Orange/Orange (B) Blue/Black (C) Red/Black (D) White/Blue (E) Red/Grey.

Eco Test Components:

- (A1) Orange Latex Coated Palm Fabric Of Sample (A) Use
- (A2) Orange Polyester/Nylon Back Fabric Of Sample (A) Use
- (A3) Orange Cuff Fabric With Elastic Of Sample (A) Use
- (B1) Black Latex Coated Palm Fabric Of Sample (B) Use
- (B2) Blue Polyester/Nylon Back Fabric Of Sample (B) Use
- (B3) Blue Cuff Fabric With Elastic Of Sample (B) Use
- (C1) Black Latex Coated Palm Fabric Of Sample (C) Use
- (C2) Red Polyester/Nylon Back Fabric Of Sample (C) Use
- (C3) Red Cuff Fabric With Elastic Of Sample (C) Use
- (D1) Blue Latex Coated Palm Fabric Of Sample (D) Use
- (D2) White Polyester/Nylon Back Fabric Of Sample (D) Use
- (D3) White Cuff Fabric With Elastic Of Sample (D) Use
- (E1) Grey Latex Coated Palm Fabric Of Sample (E) Use
- (E2) Red Polyester/Nylon Back Fabric Of Sample (E) Use
- (E3) Red Cuff Fabric With Elastic Of Sample (E) Use

Standard : BS EN ISO 21420: 2020
BS EN 388: 2016+A1: 2018

Size Range : -
Palm Material : -
Back Material : -
Cuff Material : -
Cuff Binding Material : -

Authorized By :
For Intertek Testing Services
(Tianjin) Ltd.



Jessica Lin
Manager



NUMBER : TSNT01412854

Lining Material : -
Order No. : -
Style No. : -
Buyer's Name : -
Manufacturer's Name : Gaomishi Zhonghexiang Labor Products Industry&Trade Company
Supplier's Name : Gaomishi Zhonghexiang Labor Products Industry&Trade Company

Date Received/Date Test Started : Jul 20, 2021

Authorized By :
For Intertek Testing Services
(Tianjin) Ltd.



Jessica Lin
Manager



Tests Conducted:

1. pH Value:

Textile: With Reference to ISO 3071:2020, KCl Solution Was Used For Extraction, pH Value Was Measured By pH Meter.

<u>Tested Component</u>	<u>Result</u>	<u>Requirement</u>
(A2)	7.1	*
(A3)	7.3	*
(B2)	7.0	*
(B3)	7.2	*
(C2)	7.3	*
(C3)	7.1	*
(D2)	7.0	*
(D3)	7.3	*
(E2)	6.9	*
(E3)	7.4	*

Temperature Of The Extracting Solution: 25.8°C

pH Of The Extracting Solution:5.7

Remark: * = The pH Value Shall Be Greater Than 3.5 And Less Than 9.5. And For Method ISO 4045:2018 The Difference Figure Do Not Need To Test.

Conclusion:

<u>Tested Component</u>	<u>Test Item</u>	<u>Result</u>
(A2)(A3)(B2)(B3)(C2)(C3) (D2)(D3)(E2)&(E3)	BS EN ISO 21420:2020 For pH Value	Pass

Tests Conducted :

2. Design And Construction (BS EN ISO 21420:2020, 4.1):

Sample (A)	Comply With Requirement	Requirement	Pass/Fail
		*	Pass

Remark: * = The Protective Glove Shall Be Designed And Manufactured So That In The Foreseeable Conditions Of Use, The Wearer Can Perform The Activity As Normally As Possible With An Appropriate Protection. This Document Along With The Appropriate Specific Standards Shall Be Used To Verify This Adequation.
If Required In The Relevant Specific Standard (For Example ISO 16073:2011, 5.7.3), The Glove Shall Be Designed To Minimize The Donning And Doffing Time.
For Reusable Multilayer Gloves, The Gloves Shall Be Able To Be Doffed Without Separation Of The Layers Of The Fingers. When The Glove Construction Includes Seams, The Material And Strength Of The Seams Shall Be Such That The Overall Performance Of The Glove Is Not Significantly Decreased As Required In The Relevant Specific Standards.

3. Finger Dexterity Test (BS EN ISO 21420:2020, 6.2):

Sample (A)	The Smallest Diameter Of Pin Picked Up
Specimen 1(Left Hand):	5 mm
Specimen 2(Right Hand):	5 mm
Specimen 3(Left Hand):	5 mm
Specimen 4(Right Hand):	5 mm
Performance Level:	5 (*)

Remark: * = The Classification Is Determined By The Smallest Diameter Of Pin Picked Up Of The Four Test Specimens.

Tests Conducted :

4. Abrasion Resistance (BS EN 388: 2016+A1: 2018, 6.1, 9 kPa):

Sample (A)

Adhesion Contact Time Of Test Specimen With The Double-Sided Adhesive Tape Under A Weight Of A Approximatley 10 Kg	At Least 5 Min
Surface Treatment Of Test Specimen In Order To Improve Adhesion	No Surface Treatment
Abradant	The Klingspor PL 31 B-Grit 180 Grain Aluminium Oxide
Double-Sided Adhesive Tape	3M™ Double-Sided Adhesive Tape

Observation	Specimen 1	Specimen 2	Specimen 3	Specimen 4
After 100 Cycles:	0	0	0	0
After 500 Cycles:	0	0	0	0
After 2 000 Cycles:	X	X	X	X
After 8 000 Cycles:	X	X	X	X
Performance Level :	2			

Remark:

The Minimum Requirements For Each Level:

- Level 1: 100 Cycles
- Level 2: 500 Cycles
- Level 3: 2 000 Cycles
- Level 4: 8 000 Cycles
- Level 5: -

O = No Breakthrough
X = Breakthrough

Tests Conducted :

5. Blade Cut Resistance (BS EN 388: 2016+A1: 2018, 6.2):

Sample (A)	Specimen 1 (Index)	Specimen 2 (Index)
	I ₁ :1.8	I ₆ :1.6
	I ₂ :1.6	I ₇ :1.6
	I ₃ :1.4	I ₈ :1.6
	I ₄ :1.5	I ₉ :1.6
	I ₅ :1.5	I ₁₀ :1.5
	Average Index:1.6	Average Index:1.6
The Lowest Average Index:		1.6
Performance Level :		1 (*)

Remark:

The Minimum Requirements For Each Level:

Level 1: 1.2

Level 2: 2.5

Level 3: 5.0

Level 4: 10.0

Level 5: 20.0

* = The Performance Level Is Defined As The Lowest Average Index Values Of Two Test Specimens From The Different Gloves.

6. Tear Resistance (BS EN 388: 2016+A1: 2018, 6.4):

Sample (A)	
Specimen 1:	65 N
Specimen 2:	67 N
Specimen 3:	Over 75N
Specimen 4:	71 N
Performance Level:	3(*)

Remark:

The Minimum Requirements For Each Level:

Level 1: 10 N

Level 2: 25 N

Level 3: 50 N

Level 4: 75 N

Level 5: -

* = The Classification Is Determined By Taking The Lowest Of The Four Values .

Tests Conducted :

7. Puncture Resistance (BS EN 388: 2016+A1: 2018, 6.5):

Sample (A)

Specimen 1:	50 N
Specimen 2:	40 N
Specimen 3:	45 N
Specimen 4:	49 N
Performance Level :	1 (*)

Remark:

Level 1: 20 N

Level 2: 60 N

Level 3: 100 N

Level 4: 150 N

Level 5: -

Remark: * = The Classification Is Determined By The Lowest Value Of The Four Test Specimens.

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Tests Conducted :

8. Detection Of Amines In Dyestuff:

By Gas Chromatographic-Mass Spectrometric (GC-MS) Analysis (HPLC).

Test Method : ISO 14362-1: 2017 For Textile Material

	<u>Forbidden</u>	<u>Cas No.</u>	<u>Result</u>									
			<u>Method T</u>									
			(A2)	(A3)	(B2)	(B3)	(C2)	(C3)	(D2)	(D3)	(E2)	(D3)
1.	4-Aminodiphenyl	92-67-1	N	N	N	N	N	N	N	N	N	N
2.	Benzidine	92-87-5	N	N	N	N	N	N	N	N	N	N
3.	4-Chloro-o-Toluidine	95-69-2	N	N	N	N	N	N	N	N	N	N
4.	2-Naphthylamine	91-59-8	N	N	N	N	N	N	N	N	N	N
5.	o-Aminoazotoluene	97-56-3	N	N	N	N	N	N	N	N	N	N
6.	2-Amino-4-Nitrotoluene	99-55-8	N	N	N	N	N	N	N	N	N	N
7.	p-Chloroaniline	106-47-8	N	N	N	N	N	N	N	N	N	N
8.	2,4-Diaminoaniso	615-05-4	N	N	N	N	N	N	N	N	N	N
9.	4,4'- Diaminodiphenylmethane	101-77-9	N	N	N	N	N	N	N	N	N	N
10.	3,3'-Dichlorobenzidine	91-94-1	N	N	N	N	N	N	N	N	N	N
11.	3,3'-Dimethoxybenzidine	119-90-4	N	N	N	N	N	N	N	N	N	N
12.	3,3'-Dimethylbenzidine	119-93-7	N	N	N	N	N	N	N	N	N	N
13.	3,3'-Dimethyl- 4,4'diaminodiphenylmethane	838-88-0	N	N	N	N	N	N	N	N	N	N
14.	p-Cresidine	120-71-8	N	N	N	N	N	N	N	N	N	N
15.	4,4'-Methylene-Bis(2- Chloroaniline)	101-14-4	N	N	N	N	N	N	N	N	N	N
16.	4,4'-Oxydianiline	101-80-4	N	N	N	N	N	N	N	N	N	N
17.	4,4'-Thiodianiline	139-65-1	N	N	N	N	N	N	N	N	N	N
18.	o-Toluidine	95-53-4	N	N	N	N	N	N	N	N	N	N
19.	2,4-Toluylenediamine	95-80-7	N	N	N	N	N	N	N	N	N	N
20.	2,4,5-Trimethylaniline	137-17-7	N	N	N	N	N	N	N	N	N	N
21.	2-Methoxyaniline	90-04-0	N	N	N	N	N	N	N	N	N	N
22.	4-aminoazobenzene	60-09-3	N	N	N	N	N	N	N	N	N	N
23.	2,4-Dimethylaniline	95-68-1	N	N	N	N	N	N	N	N	N	N
24.	2,6-Dimethylaniline	87-62-7	N	N	N	N	N	N	N	N	N	N

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Tests Conducted :

Detection Of Amines In Dyestuff(Cont'd)

	<u>Forbidden</u>	<u>Cas No.</u>	<u>Result</u>									
			<u>Method D</u>									
			(A2)	(A3)	(B2)	(B3)	(C2)	(C3)	(D2)	(D3)	(E2)	(D3)
1.	4-Aminodiphenyl	92-67-1	N	N	N	N	N	N	N	N	N	N
2.	Benzidine	92-87-5	N	N	N	N	N	N	N	N	N	N
3.	4-Chloro-o-Toluidine	95-69-2	N	N	N	N	N	N	N	N	N	N
4.	2-Naphthylamine	91-59-8	N	N	N	N	N	N	N	N	N	N
5.	o-Aminoazotoluene	97-56-3	N	N	N	N	N	N	N	N	N	N
6.	2-Amino-4-Nitrotoluene	99-55-8	N	N	N	N	N	N	N	N	N	N
7.	p-Chloroaniline	106-47-8	N	N	N	N	N	N	N	N	N	N
8.	2,4-Diaminoanisol	615-05-4	N	N	N	N	N	N	N	N	N	N
9.	4,4'- Diaminodiphenylmethane	101-77-9	N	N	N	N	N	N	N	N	N	N
10.	3,3'-Dichlorobenzidine	91-94-1	N	N	N	N	N	N	N	N	N	N
11.	3,3'-Dimethoxybenzidine	119-90-4	N	N	N	N	N	N	N	N	N	N
12.	3,3'-Dimethylbenzidine	119-93-7	N	N	N	N	N	N	N	N	N	N
13.	3,3'-Dimethyl- 4,4'diaminodiphenylmethane	838-88-0	N	N	N	N	N	N	N	N	N	N
14.	p-Cresidine	120-71-8	N	N	N	N	N	N	N	N	N	N
15.	4,4'-Methylene-Bis(2- Chloroaniline)	101-14-4	N	N	N	N	N	N	N	N	N	N
16.	4,4'-Oxydianiline	101-80-4	N	N	N	N	N	N	N	N	N	N
17.	4,4'-Thiodianiline	139-65-1	N	N	N	N	N	N	N	N	N	N
18.	o-Toluidine	95-53-4	N	N	N	N	N	N	N	N	N	N
19.	2,4-Toluylenediamine	95-80-7	N	N	N	N	N	N	N	N	N	N
20.	2,4,5-Trimethylaniline	137-17-7	N	N	N	N	N	N	N	N	N	N
21.	2-Methoxyaniline	90-04-0	N	N	N	N	N	N	N	N	N	N
22.	4-aminoazobenzene	60-09-3	N	N	N	N	N	N	N	N	N	N
23.	2,4-Dimethylaniline	95-68-1	N	N	N	N	N	N	N	N	N	N
24.	2,6-Dimethylaniline	87-62-7	N	N	N	N	N	N	N	N	N	N

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Tests Conducted :

Detection Of Amines In Dyestuff(Cont'd)

Remark : N = Not Detected

Detection Limit = 5 ppm

Requirement = Not Detected

ppm = parts per million = mg/kg

Method T : Direct Buffer Extraction As Per ISO 14362-1: 2017 Section 10.2

Method D : Colourant Extraction With Xylene As Per ISO 14362-1: 2017 Section 10.1

Conclusion:

Tested Component

(A2)(A3)(B2)(B3)(C2)(C3)

(D2)(D3)(E2)&(E3)

Test Item

BS EN ISO 21420:2020 For Azo Dyestuffs

Result

Pass

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Tests Conducted :

9. Polycyclic Aromatic Hydrocarbons (PAHs) Content:

With Reference To ISO/TS 16190:2013, By Solvent Extraction And Determined By Gas Chromatographic - Mass Spectrometry (GC/MS).

<u>Compound</u>	<u>Result (mg/kg)</u>					<u>Requirement</u>
	(A1)	(B1)	(C1)	(D1)	(E1)	<u>(mg/kg)</u> <u>(Max.)</u>
Benzo(a)pyrene	ND	ND	ND	ND	ND	1
Benzo(e)pyrene	ND	ND	ND	ND	ND	1
Benzo(a)anthracene	ND	ND	ND	ND	ND	1
Chrysene	ND	ND	ND	ND	ND	1
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	1
Benzo(j)fluoranthene	ND	ND	ND	ND	ND	1
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	1

Remark: ND = Not Detected
Detection limit = 0.2 mg/kg

Conclusion:

<u>Tested Component</u>	<u>Test Item</u>	<u>Result</u>
(A1)(B1)(C1)(D1)&(E1)	BS EN ISO 21420:2020 For Polycyclic Aromatic Hydrocarbons (PAHs) Content	Pass

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