

Products



TÜVRheinland®
Precisely Right.

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Client: Hi Care Thai Gloves Co., Ltd.
199 M.11, T. Banpru, A. Hatyai, Songkhla 90250

Identification / Model No(s): NITRILE EXAMINATION GLOVES POWDER FREE BLUE, 3.5 gm.

Sample Receiving date: 2020-05-07

Testing Period: 2020-05-07 to 2020-05-15

Delivery condition: Apparent good, Samples tested as received

Test Specification:	Test result:
1. EN 455-1: 2000: Requitelements for freedom from holes	PASS
2. EN 455-2: 2015: Physical properties test;	
- Dimension test	PASS
- Force at break test	PASS
3. EN 420:2003 + A1:2009 : Determination of pH Value	PASS
4. EN 420:2003 + A1:2009 : Determination of chromium VI content	Refer to result page
5. EN 420:2003 + A1:2009 : Sizing	Refer to result page

Other Information:

Manufacture: Hi Care Thai Gloves Co., Ltd.

For and on behalf of
TÜV Rheinland Thailand Ltd.

 

2020-05-26

Wilawan Sriphrom / Manager

Date

Name/Position

Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. M. Test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.



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Sampling Information:

Inspection Method: No inspection, submitted sample by client
Inspection level: N/A
AQL: N/A
Sample size: N/A

Material list:

Material No.	Material	Color	Location
M001	Nitrile glove	Blue	Size S
M002	Nitrile glove	Blue	Size M
M003	Nitrile glove	Blue	Size L
M004	Nitrile glove	Blue	Size XL



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Freedom from holes

Test method: With reference to EN 455-1: 2000

Test result:

Gloves Size	Tested samples	No. of samples for Non-compliance	Conclusion
M	200 pcs.	0	Pass

Remark:

- All samples were selected and supplied by the client.
- The batch size of the gloves supplied was not stated by the client. In accordance with BS EN 455-1, a batch size between 35,001 to 150,000 was chosen, and therefore 50 gloves per stage were tested for perforations using General Inspection Level I at an AQL of 1.5%. with reference to table;

Stage No.	cumulative no. tested	Accept	Reject
First	50	0	4
Second	100	1	6
Third	150	3	8
Fourth	200	5	9
Fifth	250	9	19

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Dimension test

Test method: EN 455-2: 2015

Test results:

Test No.:	T001		T002	
Material No.:	M001		M002	
Tested no.	Length (mm)	Width (mm)	Length (mm)	Width (mm)
1	250	83	250	95
2	251	82	251	96
3	251	83	250	95
4	252	83	251	96
5	250	83	251	95
6	252	82	250	96
7	251	83	251	95
8	252	82	252	96
9	251	83	251	95
10	250	82	252	96
11	251	82	250	95
12	250	83	251	96
13	251	84	250	95
Median result	251	83	251	95
Conclusion	Pass	Pass	Pass	Pass



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Test No.:	T003		T004	
Material No.:	M003		M004	
Tested no.	Length (mm)	Width (mm)	Length (mm)	Width (mm)
1	250	108	256	113
2	251	108	255	112
3	250	109	255	113
4	251	109	256	112
5	250	108	255	112
6	251	108	256	111
7	250	109	255	112
8	251	108	255	113
9	252	108	256	112
10	251	109	255	113
11	252	108	256	112
12	252	108	255	113
13	250	108	255	113
Median result	251	108	255	112
Conclusion	Pass	Pass	Pass	Pass

Abbreviation: mm = millimeter

Remark: Dimension limit reference to table

Size	Median length (mm)	Median width (mm)
Extra small	≥ 240	≤ 80
Small		80±10
medium		95±10
Large		110±10
Extra large		≥ 110

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Force at break

Test method: EN 455-2: 2015

Test results:

Test No.	T001	
Material No.	M002	
Tested no.	Force at break Before ageing (N)	Force at break After ageing (N)
1	7.83	6.74
2	7.87	6.10
3	7.87	6.34
4	7.15	6.89
5	7.28	6.76
6	7.64	6.31
7	7.05	6.74
8	7.50	6.63
9	7.27	6.73
10	6.95	6.57
11	7.71	6.59
12	7.10	6.18
13	7.46	6.32
Median result	7.46	6.59
Conclusion	Pass	Pass

Abbreviation: N = Newton

Remark:

1. Median values of force at break

Force at Break (newton)		
a)	b)	c)
≥ 9.0	≥ 6.0	≥ 3.0

- a) Requirements for all surgical gloves
 b) Requirements for all examination gloves, except gloves made from thermoplastic materials (e.g. Polyvinylchloride, Polyethylene)
 c) Requirements for gloves made from thermoplastic materials (e.g. Polyvinylchloride, Polyethylene)

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pH value*

Test Method: With reference to EN 1413: 1998

Test Result:

Test No.	Material No.	Average pH of Aqueous extract	Requirement
T001	M003	7.32	3.5-9.5

Remark * The test item is not under ISO/IEC 17025 accreditation scope.

Chromium VI content *

Test Method: With reference to EN ISO 17075-1:2017, determine by UV-Vis Spectrophotometer.

Test Result:

Test No.	Material No.	Test parameter	Unit	MDL	Test Result
T001	M004	Chromium VI content	mg/kg	0.3	n.d.

Abbreviation: n.d. = not detected (< MDL)
 MDL = Method Detection Limit
 mg/kg = milligram per kilogram = ppm

Remark:

1. According to EN 420: 2008+A1: 2019, Chromium VI in gloves containing leather shall not exceed of 3.0 mg/kg, for other no requirements.
2. * The test item is not under ISO/IEC 17025 accreditation scope.

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Sizing *

Test method: With reference to EN 420 : 2008 + A1: 2019

Test results:

Test No.:	T001		
Material No.:	M001		
Tested no.	Hand circumference (mm)	Hand length (mm)	Length of glove (mm)
1	178	172	250
2	178	173	251
3	179	171	251
4	178	171	252
5	179	171	250
6	178	172	252
7	179	172	251
8	178	171	252
9	176	171	251
10	176	171	250
11	178	171	251
12	178	171	250
13	179	172	251
Minimum	176	171	250



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Test No.:	T002		
Material No.:	M002		
Tested no.	Hand circumference (mm)	Hand length (mm)	Length of glove (mm)
1	203	182	250
2	204	183	251
3	204	182	250
4	203	183	251
5	204	182	251
6	205	183	250
7	204	182	251
8	203	182	252
9	203	182	251
10	203	182	252
11	203	182	250
12	203	183	251
13	204	182	250
Minimum	203	182	250

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Test No.:	T003		
Material No.:	M003		
Tested no.	Hand circumference (mm)	Hand length (mm)	Length of glove (mm)
1	229	193	250
2	230	192	251
3	228	194	250
4	229	194	251
5	228	193	250
6	228	192	251
7	229	192	250
8	228	192	251
9	229	192	252
10	228	192	251
11	229	193	252
12	229	192	252
13	229	193	250
Minimum	228	192	250



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Test No.:	T004		
Material No.:	M004		
Tested no.	Hand circumference (mm)	Hand length (mm)	Length of glove (mm)
1	254	204	260
2	254	203	260
3	255	204	260
4	253	204	265
5	254	204	262
6	253	204	262
7	254	204	263
8	254	203	260
9	254	204	263
10	254	204	263
11	254	204	263
12	253	204	262
13	254	203	260
Minimum	253	203	260

Abbreviation: mm = millimeter

Remark:

1. Requirement for Sizes of hands;

Hand size ^a	Hand circumference (mm)	Hand length (mm)
6	152	160
7	178	171
8	203	182
9	229	192
10	254	204
11	279	215

^a This code is a conventional designation of hand size corresponding to the hand circumference expressed in inches.

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2. Requirement for Sizes of gloves ;

Hand size	Fit	Minimum length of glove (in accordance with 6.1.3) (mm)
6	hand size 6	220
7	hand size 7	230
8	hand size 8	240
9	hand size 9	250
10	hand size 10	260
11	hand size 11	270

3. * The test item is not under ISO/IEC 17025 accreditation scope.

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Sample photo:

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M001 – Size S



M002 – Size M



M003 – Size L



M004 – Size XL

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