

KS-ST RT021

NITRILE GLOVE





You're protected.

Our gloves will be manufactured through rigorous tests based on the corresponding regulations. We will ensure the demand and protection in accordance with the highest quality standards.

There will be 96 product lines at the end of 2021, and the daily output of each machine will be approximately 1 million.





Serves Worldwide



United State

Canton, Michigan

9 Germany

Wiesbaden

3 India

Chennai

Malaysia

Kuala Lumpur

China

Konggang, Tianjin

Mianyang,Sichuan

Chengdu,Sichuan

Wuhan, Hubei

Kunshan, Jiangsu

Qinpu,Shanghai

Ningbo,Zhejiang

Qingyuan, Guangdong

Guangzhou, Guangdong

Zhuhai, Guangdong



Inhouse Production



Personalized Service and 24/7 Online Tracking System

Increasing Efficiency



Raw Material Supply Chain Management & Control

Short Leadtime



Overseas Distribution Centers

Risk Control & Management



SGS Inspection and Quality Control



Focus on supplier management, new products development and quality control.

Strong Supply System



Excellent Technology Team



Various Kinds of Products



Kingfa makes full use of its own technology accumulated in the modified plastics industry for many years. With the experience and advantages of process control and test certifications, we have successfully developed nitrile gloves with excellent physical properties, tactile sensitivity, chemical resistance and virus resistance, which can provide effective protection for people.



MODEL: KS-ST RT021



| Chemical | Letter | Level |
|----------|--------|-------|
| | K | 6 |
| Туре | (| C |

FEATURE

- Fingertip textured
- Powder Free
- Latex Free
- Multifunctional
- Blue colour

APPLICATION

The disposable nitrile gloves are designed for the health care personnel to prevent contamination during close contact with the patient. The products are single-use, powder-free and non-sterile.

STANDARD COMPLIAINCE

PPE Cat III

according to Regulation (EU) 2016/425 EN ISO 21420:2020 Protective gloves — General requirements and test methods

EN ISO 374-1: 2016 Terminology and performance requirements for chemical risks

EN 374-2:2014: Determination of resistance to penetration

EN 16523-1:2015+A1:2018 Permeation by potentially hazardous liquid chemicals under conditions of continuous contact

EN ISO 374-4:2019 Determination of resistance to degradation by chemicals

EN ISO 374-5:2016 Terminology and performance requirements for microorganisms risks

Medical Device Class I

EN 455-1: Requirements and testing for freedom from holes

EN 455-2: Requirements and testing for physical properties

EN 455-3: Requirements and testing for biological evaluation

EN 455-4: Requirements and testing for shelf life determination

Food contact approved





TEST REPORT

EN 455 1-3

Test Report No. 7191250395-EEC21-WBH dated 07 Jan 2021

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.

SUBJECT:

Testing of Gloves submitted by Guangdong Kingfa Sci.& Tech. Co., Ltd. on 10 Dec 2020.

Add value. Inspire trust.

TESTED FOR:

Guangdong Kingfa Sci.& Tech. Co., Ltd. No. 28 Delong Avenue, Shijiao Town, Qingcheng District, Qingyuan City, Guangdong Province, China

TEST DATE:

11 Dec 2020 to 02 Jan 2021

DESCRIPTION OF SAMPLES:

| S/N | Product Description | Brand/ Model | Size | Colour | Lot No. | Expiry Date | Sample Received (pieces) | Manufacturer |
|-----|---------------------------------|--------------|------|--------|----------|-------------|--------------------------------|--|
| 1 | Nitrile Examination Glove | KS-ST RT021 | М | Blue | 25007031 | 2023-07-15 | | Guangdong Kingfa Sci.& Tech. Co., Ltd. |

Lot size as specified by client: 35,001 to 150,000 pieces

METHOD OF TEST:

- EN 455-1:2020 Medical gloves for single use Part 1: Requirements and testing for freedom from holes
- EN 455-2:2015 Medical gloves for single use Part 2: Requirements and testing for physical properties
- EN 455-3:2015 Medical glove for single use Part 3: Requirements and testing for biological evaluation



Laboratory: TÜV SÜD PSB Pte. Ltd. TÜV SÜD @ IBP 15 International Business Park Singapore 609937 Phone: +65-6778 7777 E-mail: info.sg@tuvsud.com https://www.tuvsud.com/en-sg Co. Reg: 199002667R Regional Head Office: TÜV SÜD Asia Pacific Pte. Ltd. TÜV SÜD @ IBP 15 International Business Park Singapore 609937





RESULTS:

Sample: Nitrile Examination Glove, KS-ST RT021, Blue, Size M

Table 1: Results for EN 455-1:2020

| Clause | Tests | Requirements | No. of non-compliers allowed (pieces) | Number tested (pieces) | Actual no. of non-compliers found (pieces) | Inferred results |
|--------|--------------------|----------------|---|------------------------------|--|------------------|
| 4 5 | Freedom from holes | Shall not leak | 7 | 200 | 2 | Passed |

Table 2: Results for EN 455-2:2015 Clauses 4-5

| Clause | Tests | Requirements (Median) | Number tested (pieces) | Results (Median) | Inferred results |
|--------|--|---------------------------------------|------------------------|---------------------|------------------|
| 4 | Dimensions a) Length (mm) | ≥ 240 | 13 | 252 | Passed |
| 4 | b) Width (mm) | For Size M: 95 ± 10 | 13 | 96 | Passed |
| | Strength a) Force at break (N) | For nitrile examination gloves: ≥ 6.0 | 13 | 10.6 | Passed |
| 5 | b) Force at break after challenge testing (N) 7 days at (70±2)°C | For nitrile examination gloves: ≥ 6.0 | 13 | 9.3 | Passed |

Table 3: Results for EN 455-2:2015 Clause 7

| Clause | Tests | Requirements | Results | Inferred results |
|--------|-----------|--|---------|------------------|
| 7 | Labelling | Manufacturers shall label the glove and/or the packaging with the date of manufacture in accordance with EN ISO 15223-1:2012 and EN 1041:2008+A1:2013. Date of manufacture is defined as the packaging date. | Comply | Passed |





RESULTS (cont'd):

Sample: Nitrile Examination Glove, KS-ST RT021, Blue, Size M

Table 4: Results for EN 455-3:2015 Clauses 4.2-4.5

| Clause | Tests | Requirements | Results / Remarks | Inferred results |
|------------|------------------------|---|---|------------------|
| 4.2 | Chemicals | Gloves shall not be dressed with talcum powder (magnesium silicate). | Glove is talcum powder-free glove, based on client's declaration letter | Passed |
| 4.2 | Chemicais | Other chemicals | Manufacturer shall disclose upon request a list of chemical ingredients | NA |
| 4.3 5.1 | Endotoxins | < 20 EU/pair for gloves labelled with 'low endotoxin content'. | Not labelled with 'low endotoxin content' | NA |
| 4.4 5.2 | Powder- free gloves | For powder-free gloves: The total quantity of powder residues shall not exceed 2 mg per glove. | 0.18 mg per glove | Passed |
| 4.5 5.3 | Proteins, leachable | The manufacturer shall strive to minimize the leachable protein level for gloves containing natural rubber latex. | Not natural rubber latex glove | NA |

Table 5: Results for EN 455-3:2015 Clause 4.6

| Clause | Tests | Requirements | Results |
|--------|-----------|--|---------|
| | | In addition to the labelling specified in EN 1041:2008+A1:2013 and the relevant symbols given in EN ISO 15223-1:2012, the following requirements apply: | |
| | | a) medical gloves containing natural rubber latex shall be labelled on the packaging of at least the smallest packaging unit with the EN ISO 15223-1:2012 symbol for latex; | NA |
| | | The labelling shall include the following or equivalent warning statement together with the symbol: '(Product) contains natural rubber latex which may cause allergic reactions, including anaphylactic responses'; | NA |
| 4.6 | Labelling | b) the labelling shall include a prominent indication of whether the glove is powdered or powder-free; | Comply |
| | Laboling | c) sterile powdered gloves shall be labelled with the following or equivalent: 'CAUTION: Surface powder shall be removed aseptically prior to undertaking operative procedures in order to minimize the risk of adverse tissue reactions'; | NA |
| | | d) for any medical glove containing natural rubber latex the product labelling shall not include: - any term suggesting relative safety, such as low allergenicity, hypoallergenicity or low protein; - any unjustified indication of the presence of allergens; | NA |
| | | e) if the manufacturer labels the gloves with the protein content, the process limit, measured as specified in 5.3 shall be given. | NA |
| | | Inferred results | Passed |





REMARKS:

- 1. Labelling requirements are assessed based on the submitted packaging artwork by client.
- 2. NA: Not applicable for the submitted sample.



Wong Bee Hui Product Manager Medical Health Services (NAM)

APPENDIX:



Photo 2: Packaging artwork for Nitrile Examination Glove, KS-ST RT021, Blue, Size M





Please note that this Report is issued under the following terms:

- 1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
- The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no
 responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information
 supplied.
- Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
- 4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
- 5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, 15 International Business Park Singapore 609937.
- The tests carried out by TÜV SÜD PSB and this report are subject to TÜV SÜD PSB's General Terms and Conditions of Business and the Testing and Certification Regulations of the TÜV SÜD Group.

Effective 01 January 2021





TEST REPORT

EN 455-4







Final Report

Report Number: SDWH-M202005587-1(E)

Physical Properties Shelf Life Test of Nitrile gloves **Accelerated Aged for 1 Year Accelerated Aged for 3 Years**

Sponsor: GUANG DONG KINGFA SCI.& TECH.CO.,LTD

No.28 Delong Ave., Shijiao Town, Qingcheng District Ong Address: yuan, Guangdong, China



Sanitation & Environment Technology Institute, Sooch(2) Upiversity

Address: 199 Ren-Ai Road, Suzhou Industrial Park, Suzhou, Jiangsu 215123, P. R. China Website: www.sudatest.com E-mail: med@sudatest.com Free: 400 107 8828 Direct: +86 512 65880038



ROTECTING

Sanitation & Environment Technology Institute, Soochow University

Report No.: SDWH-M202005587-1(E)

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Supplementary Explanation

Report No.: SDWH-M202005587-1(E)

- (1) Please apply for rechecking within 15 days of receiving the report if there are any objections.
- (2) Any erasure or without special inspection and testing seal renders the report null and void.
- (3) The report is only valid when signed by the persons who edited, checked and approved it.
- (4) The results relate only to the articles tested.
- (5) The report shall not be reproduced except in full without the written approval of the institute.
- (6) Conclusion determination basis is not in the scope of accreditation.



Report No.: SDWH-M202005587-1(E)

Verification Dates

| | Test Article Receipt | 2020-10-13 |
|---|-------------------------------------|------------|
| \ | Protocol Effective Date | 2020-10-21 |
| | Technical Initiation Date | 2020-10-29 |
| | Technical Completion Date | 2021-02-23 |
| | Final Report Completion Date | 2021-03-08 |
| | | |

Edited by: Wang Deheng 2021-03-08

Date

Reviewed by: Jiang Chong youn 2021-03-08

Study Director Date

Approved by: Wang 1 Tie 2021-03-08

Authorized Signatory

Sanitation & Environment Technology Institute, Spochow University

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Report No.: SDWH-M202005587-1(E)

Summary

1 Test Article

| Test Article Name | Nitrile g | loves | | | |
|-------------------|------------------|----------------------|----------------------|----------------|---------------|
| Manufacturer | GUANO | G DONG KI | NGFA SCI.& TI | ECH.CO.,LTD | |
| Address | No.28 yuan,Gu | Delong angdong,Cl | Ave.,Shijiao hina | Town,Qingcheng | District,Qing |
| Model | KS-ST I | RT021 | | | |
| Lot/Batch | 2500701 | 18/25007019 | 9/25007020 | | |

2 Main Reference

Medical gloves for single use Part 4: Requirements and testing for shelf life determination (EN455-4:2009)

Standard Guide for Accelerated Aging of Sterile Barrier Systems for Medical Devices (ASTM F 1980-16)

3 Test Method

Watertightness test and physical property test were performed both before and after the test glove were accelerated aged for 33 days and 97 days.

Study protocol number: SDWH-PROTOCOL-M202005587-1.

4 Conclusion

The test glove could achieve the physical properties shelf life for 3 years under this test condition.



Report No.: SDWH-M202005587-1(E)

Test Report

Purpose

The test was designed to validate the physical properties shelf life of the test gloves.

Sanitation & Environment Technology Institute, Soochow University

Reference

Medical gloves for single use Part 4: Requirements and testing for shelf life determination (EN455-

Standard Guide for Accelerated Aging of Sterile Barrier Systems for Medical Devices (ASTM F 1980-16)

3 Compliance

ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation criteria for the competence of testing and calibration laboratories) China National Accreditation Service for Conformity Assessment LABORATORY ACCREDITATION CERTIFICATE Registration No. CNAS L2954

RB/T 214-2017 Competence assessment for inspection body and laboratory mandatory approval—General requirements for inspection body and laboratory Certification and Accreditation Administration of the People's Republic of China INSPECTION BODY AND LABORATORY MANDATORY APPROVAL Certificate No. CMA 180015144061

Identification of Test Article

| Test Article Name | Nitrile glo | oves | | | |
|----------------------------|-------------------|--------------------|-----------------------|----------------|---------------|
| Manufacturer | GUANG | DONG K | INGFA SCI.& | TECH.CO.,LTD | |
| Address | No.28 yuan,Gua | Delong ngdong,0 | Ave.,Shijiao China | Town,Qingcheng | District,Qing |
| Test Article Initial State | Non-steril | le | | | |
| CAS Number | Not suppl | ied by sp | onsor (N/S) | | |
| Model | KS-ST RT | Γ021 | | | |
| Size | M | | | | |
| Lot/Batch | 25007018 | /250070 | 19/25007020 | | |
| Raw Material | Nitrile | | | | |
| Packaging Material | N/A | | | | |
| Physical State | Solid | | | | |
| Color | BLUE | | | | |
| Density | N/A | | | | |
| Stability | N/A | | | | |
| Solubility | N/A | | | | |
| Storage Condition | Room ten | perature | | | |
| Intended Use | N/A | | | | |
| Additional Information | N/A | | | | |

The information about the test article was supplied by the sponsor wherever applicable.



Sanitation & Environment Technology Institute, Soochow University Report No.: SDWH-M202005587-1(E)

5 Equipment and Reagents

5.1 Equipment

| Equipment Name | Equipment Number | Calibration Expire |
|--|------------------|--------------------|
| Ruler | SDWH463 | 2021-07-06 |
| Computer control tensile tester | SDWH872 | 2021-03-11 |
| High temperature and high humidity aging box | SDWH314 | 2021-09-29 |
| High temperature and low humidity aging box | SDWH315 | 2021-09-02 |

6 Test Methods and Results

6.1 Accelerated Aging Test

6.1.1 Test condition: Accelerated Aging Temperature (60°C), High RH (70%), Low RH (20%), $Q_{10}=2$

6.1.2 Parameters:

| Aging Time | Q ₁₀ | T_{AA} | T_{RT} | AAF | Desired RT | AAT |
|---------------|-----------------|----------|----------|------|---------------|---------|
| 1 y | 2 | 60℃ | 25℃ | 11.3 | 365Days | 33 Days |
| 3 y | 2 | 60°C | 25℃ | 11.3 | 1095Days | 97 Days |

 Q_{10} : Arrhenius reaction rate function states that a 10° C increase or decrease in temperature of a homogeneous process results in approximately, a two times or V2-time change in the rate of a chemical reaction ($Q_{10}=2$).

TAA: Selected Accelerated Aging Temperature (°C);

T_{RT}: Ambient Temperature (°C).

AAF (Accelerated Aging factor) = $Q_{10}^{[(T_{AA}-T_{RT})^{10}]}$.

Desired RT: Desired simulated Real Time.

AAT: Accelerated Aging Time to simulate a Desired RT; AAT = Desired RT/AAF

6.1.3 Calculation for accelerated aging time:

Accelerated Aging factor (AAF)= $Q_{10}^{[(T_{AA}-T_{RT})^{10}]}=2^{[(60-25)^{10}]}=11.3$

Accelerated Aging Time of 1y (AAT) = Desired (RT)/AAF=365/11.3=33 days

Accelerated Aging Time of 3y (AAT) = Desired (RT)/AAF=1095/11.3=97 days

6.1.4 Aging schedule:

| | 0 0 | |
|----|------------------------|-------------------------------|
| | 1y Equivalent 33 Days | Date |
| 24 | High RH = 70%: 16 Days | From 2020-10-29 to 2020-11-14 |
| | Low RH = 20%: 17 Days | From 2020-11-14 to 2020-12-01 |
| | 3y Equivalent 97 Days | Date |
| S- | High RH = 70%: 48 Days | From 2020-10-29 to 2020-12-16 |
| | Low RH = 20%: 49 Days | From 2020-12-16 to 2021-02-03 |
| | | |

6.1.5 Watertightness test and physical property test were performed both before and after the test glove were accelerated aged for 33 days and 97 days.

6.2 Watertightness Test

6.2.1 Test samples: 50 pieces/Batch.



Report No.: SDWH-M202005587-1(E)

- 6.2.2 Vertically positioned the filling tube to fit the glove and attached the glove to the filling tube, overlapping the cuff by a maximum of 40 mm over the end of the tube and secured it to obtain a watertight seal without damaging the globe.
- 6.2.3 Added 1000 ± 50 ml of water at a temperature of (15 to 35)°C into the open end of the filling tube, allowing the water to pass freely into the glove.
- 6.2.4 Immediately inspected the glove visually for water leakage. Allowed the glove to hang and visually inspected the glove for water leakage again after a period of 2 min to 3 min.
- 6.2.5 Disregard leakages within 40 mm of the cuff.
- 6.2.6 Results: List in Table.

6.3 Physical property test

- 6.3.1 Obtained one dumb-bell test piece from each of 13 gloves/batch using a cutter from the palm, back of the hand or cuff areas of each glove in the test sample, avoiding textured areas if possible and taking the test pieces in the direction of the longitudinal axis of the glove;
- 6.3.2 Determined the force at break of the 13 test pieces after conditioning at 23±2°C and 50±5% relative humidity for 24 hours under test condition and cross-head speed of 500 mm/min;
- 6.3.3 Recorded the force at break, in Newtons, for each of the 13 samples.
- 6.3.4 Results: List in Table.

7 Conclusion

The test glove could achieve the physical properties shelf life for 3 years under this test condition.

8 Record Storage

All raw data pertaining to this study and a copy of the final report are to be retained in designated SDWH archive.

9 Confidentiality Agreement

Statements of confidentiality were as agreed upon prior to study initiation.

10 Deviation statement

There was no deviation from the approved study protocol which was judged to have any impact on the validity of the data.



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Annex 1 Test Data

Table 1 The results of watertightness test (Lot/ Batch: 25007018)

| | The Results | The Results | The Results |
|-----------------------------|-------------|---------------|----------------|
| 1929 | (Zero-time) | (1 year Aged) | (3 years Aged) |
| Sample | 50 Gloves | 50 Gloves | 50 Gloves |
| Number of Non-conforming | 0 Glove | 0 Glove | 0 Glove |
| Criteria | ≤2 Gloves | ≤2 Gloves | ≤2 Gloves |
| Conclusion | Acceptable | Acceptable | Acceptable |

Table 2 The results of watertightness test (Lot/ Batch: 25007019)

| | The Results (Zero-time) | The Results (1 year Aged) | The Results (3 years Aged) |
|-----------------------------|-------------------------|------------------------------|-------------------------------|
| Sample | 50 Gloves | 50 Gloves | 50 Gloves |
| Number of Non-conforming | 0 Glove | 0 Glove | 0 Glove |
| Criteria | ≤2 Gloves | ≤2 Gloves | ≤2 Gloves |
| Conclusion | Acceptable | Acceptable | Acceptable |

Table 3 The results of watertightness test (Lot/ Batch: 25007020

| | The Results (Zero-time) | The Results (1 year Aged) | The Results (3 years Aged) |
|-----------------------------|-------------------------|------------------------------|-------------------------------|
| Sample | 50 Gloves | 50 Gloves | 50 Gloves |
| Number of Non-conforming | 0 Glove | 0 Glove | 0 Glove |
| Criteria | ≤2 Gloves | ≤2 Gloves | ≤2 Gloves |
| Conclusion | Acceptable | Acceptable | Acceptable |

 Table 4
 The results of physical property test (Lot/ Batch: 25007018)

| No. | Force at break (Zero-time) N | Force at break (1 year Aged) N | Force at break (3 years Aged) N | |
|------------|---------------------------------|-----------------------------------|------------------------------------|--|
| 1 🔹 | 8.49 | 7.79 | 10.00 | |
| 2 | 5.29 | 9.33 | 9.19 | |
| 3 | 8.55 | 8.63 | 8.67 | |
| 4 | 8.46 | 8.41 | 9.92 | |
| 5 | 7.66 | 6.73 | 10.05 | |
| 6 | 8.92 | 9.75 | 9.02 | |
| 7 | 8.29 | 9.16 | 8.09 | |
| 8 | 8.04 | 6.15 | 5.35 | |
| 9 | 6.36 | 6.89 | 10.11 | |
| 10 | 9.67 | 8.62 | 7.54 | |
| 11 | 5.07 | 9.17 | 8.50 | |
| 12 | 5.81 | 9.02 | 8.50 | |
| 13 | 7.35 | 6.21 | 8.90 | |
| Median | 8.04 | 8.62 | 8.90 | |
| Criteria | ≥6.0 | ≥6.0 | ≥6.0 | |
| Conclusion | Acceptable | Acceptable | Acceptable | |



Report No.: SDWH-M202005587-1(E)

| 2000 | he results of physical prop Force at break | Force at break | Force at break | |
|------------|---|-----------------|------------------|--|
| No. | (Zero-time) N | (1 year Aged) N | (3 years Aged) N | |
| 1 | 6.68 | 10.76 | 8.47 | |
| 2 | 9.72 | 10.34 | 8.99 | |
| 3 | 7.35 | 11.02 | 8.58 | |
| 4 | 8.34 | 8.95 | 9.68 | |
| 5 | 10.38 | 9.58 | 7.68 | |
| 6 | 9.13 | 8.71 | 12.10 | |
| 7 | 12.43 | 9.37 | 10.29 | |
| 8 | 10.22 | 9.53 | 10.76 | |
| 9 | 9.35 | 8.47 | 6.92 | |
| 10 | 11.68 | 7.56 | 7.98 | |
| 11 | 5.36 | 8.12 | 12.27 | |
| 12 | 7.94 | 8.40 | 11.12 | |
| 13 | 9.49 | 7.20 | 8.49 | |
| Median | 9.35 | 8.95 | 8.99 | |
| Criteria | ≥6.0 | ≥6.0 | ≥6.0 | |
| Conclusion | Acceptable | Acceptable | Acceptable | |

Table 6 The results of physical property test (Lot/ Batch: 25007020)

| | No. | Force at break (Zero-time) N | Force at break (1 year Aged) N | Force at break (3 years Aged) N |
|---|------------|---------------------------------|-----------------------------------|------------------------------------|
| | 1 | 5.57 | 8.71 | 10.76 |
| | 2 | 7.98 | 9.94 | 10.53 |
| | 3 | 11.91 | 9.89 | 9.24 |
| | 4 | 10.40 | 9.55 | 5.56 |
| | 5 | 11.69 | 9.94 | 9.12 |
| | 6 | 10.11 | 7.98 | 9.72 |
| | 7 | 8.47 | 9.05 | 11.07 |
| | 8 | 10.16 | 9.21 | 12.34 |
| | 9 | 5.39 | 10.20 | 8.07 |
| | 10 | 7.96 | 10.63 | 11.95 |
| | 11 | 6.64 | 9.64 | 9.42 |
| | 12 | 7.48 | 9.03 | 7.12 |
| | 13 | 7.52 | 8.38 | 7.77 |
| | Median | 7.98 | 9.55 | 9.42 |
| | Criteria | ≥6.0 | ≥6.0 | ≥6.0 |
| (| Conclusion | Acceptable | Acceptable | Acceptable |



Report No.: SDWH-M202005587-1(E)

Annex 2 Photograph of Test Article





Sanitation & Environment Technology Institute, Soochow University Report No.: SDWH-M202005587-1(E)

Annex 3 Information Provided by Sponsor

| 1 | Production Process | 9 | 9 | |
|------|---------------------------|---------------|-------------|--|
| Not | supplied by sponsor. | | | |
| 2 | Other Information | | (1/2) | |
| Batc | h Size:2000 pieces/batch. | In. | d. | |
| | ~0`— | | | |
| | | End of Report | | |



TEST REPORT

EN 1186

Test Report No.: 68.431.21.0029.01

Dated: 2021-03-03



Applicant : GUANGDONG KINGFA SCI.&TECH. CO., LTD.

NO.28 Delong Avenue, Shijiao Town, Qingcheng District,

Qingyuan City, Guangdong Province, China

Sample Description Nitrile gloves

Style No. / Name / Design No. : KS-ST RT021

Supplier/Manufacturer GUANGDONG KINGFA SCI.&TECH. CO., LTD.

Test Sample Receipt Date, Location 2021-02-04, Shenzhen

Test Period, Location From 2021-02-04 to 2021-03-02, Shenzhen

Test Result(s) Refer to Section 3



Test Report No.: 68.431.21.0029.01

Dated: 2021-03-03



Purpose Of Examination / Conclusion:

| Test Requested: | As specified by client, to test per the selected requirement(s) for the tested |
|-----------------|--|
| | item(s) as stated in the Regulation (EC) No.1935/2004 |

| No. | Test Item(s) | Conclusion |
|-----|-------------------|------------|
| 1. | Overall Migration | Pass |

Remarks:

- (1) The results relate only to the items tested.
- (2) Samples are tested as received.
- (3) The test item and samples were specified by the client
- (4) "Pass" means the measured result is within a limit, even when extended by expanded uncertainty. "Fail" means the measured result is beyond a limit, even when extended by expanded uncertainty. "Inconclusive" means the measured result can be within or beyond a limit when extended by expanded uncertainty. The confidence level of the expended uncertainty for "Pass", "Fail" and "Inconclusive" is 95%.

TüV SüD Certification and Testing (China) Co., Ltd. Shenzhen Branch TüV SüD Group

Prepared by:

Reviewed by:

Simon Liu Project Engineer Angelina Wang Supervisor

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Test Report No.: 68.431.21.0029.01

Dated: 2021-03-03



1. Description of the Test Sample:

| 2 | |
|--------------------|----------------|
| Sample Description | Nitrile gloves |

2. List of Materials as identified by the Laboratory:

| T. No. | Sample No. | Colour and Description | Photograph |
|--------|---------------|-------------------------|------------|
| T1 | 001 | Blue NBR rubber (Glove) | |





Test Report No.: 68.431.21.0029.01

Dated: 2021-03-03



Test Result 3.

Overall Migration

Test method: As specified in Regulation (EU) No. 10/2011 ANNEX III and V then test with reference

EN 1186-1:2002(Guide to the selection of conditions and test methods for overall migration)

EN 1186-2:2002(Oil by Total Immersion method)

EN 1186-3:2002(Total Immersion method)

| | | R | ESULT [mg/dm | 1 ²] | MAXIMUM |
|---------------------|--------------------|--|--|--|---|
| SIMULANT USED | TEST CONDITIONS | SAMPLE 001 1 st Migration | SAMPLE 001 2 nd Migration | SAMPLE 001 3 rd Migration | PERMISSIBLE LIMIT [mg/dm²] |
| 3% Acetic acid | 40°C for 2 Hours | <3 | <3 | <3 | 3 rd migration: |
| 10% Ethanol | 40°C for 2 Hours | <3 | <3 | <3 | 10, |
| Rectified olive oil | 40°C for 2 Hours | 4.1 | <3 | <3 | 3 rd < 2 nd < 1 st |

| | * // | R | RESULT [mg/dm²] | | | |
|---------------------|--------------------|--|--|--|---|--|
| SIMULANT USED | TEST CONDITIONS | SAMPLE 001 1 st Migration | SAMPLE 001 2 nd Migration | SAMPLE 001 3 rd Migration | PERMISSIBLE LIMIT [mg/dm²] | |
| 3% Acetic acid | 70°C for 2 Hours | <3 | <3 | <3 | 3 rd migration: | |
| 10% Ethanol | 70°C for 2 Hours | <3 | <3 | <3 | 10, | |
| Rectified olive oil | 70°C for 2 Hours | 5.8 | <3 | <3 | 3 rd < 2 nd < 1 st | |

Note 1. "°C" denotes degree Celsius

- 2. "<" denotes less than
- 3. "mg/dm2" denotes milligram per square decimeter
- 4. The specification was quoted from Regulation (EU) No. 10/2011 and its amendment (EU) No. 2020/1245.

-- END OF TEST REPORT--



TEST REPORT

EN ISO 374 1-5



SATRA Technology Services (Dongguan) Ltd Unit 110, Xinzhongyin Garden, Xiping Nancheng District, Dongguan City Guangdong Province, China Tel: +86 (0) 769 22888020 email: info@satrafe.com

Customer details:

Guangdong Kingfa Sci. & Tech. Co., Ltd

NO.28 Delong Avenue

Shijiao Town Qingcheng District Qingyuan City Guangdong Province

China

SATRA reference: CHT0305236 /2047/

Issue 2

Your reference: KS-ST RT021

Date of report: 29

29 January 2021

Samples received: 20 November 2020

Date(s) work carried out:

23 November 2020 to 1 December 2020

The second second second

TECHNICAL REPORT

(This report replaces the technical report of CHT0305236 /2047 issued on 10 December 2020)

Subject:

EN ISO 21420: 2020 size & dexterity & innocuousness test, EN ISO 374-2: 2019 air leak and water leak, EN ISO 374-5: 2016 viruses test on Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Size: S (6), M (7), L (8), XL (9), Reference number: KS-ST RT021.

Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in the report.

The uncertainty of the results (UoM) in this report is based on a standard uncertainty multiplied by a coverage factor k=2, which provides a coverage probability of approximately 95%.

Report signed by: Position:

Department:

Adam Zhang Technologist China Testing

(Page 1 of 9)

Adam Zhang





WORK REQUESTED

Samples described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Size: S (6), M (7), L (8), XL (9), Reference number: KS-ST RT021 were received by SATRA on 20 November 2020 for testing in accordance with EN ISO 21420: 2020, EN ISO 374-2: 2019 and EN ISO 374-5: 2016.

SAMPLE SUBMITTED



Samples described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021

TESTING REQUESTED

EN ISO 21420: 2020 Clause 5.1 - Sizing and measurement of gloves

EN ISO 21420: 2020 Clause 5.2 – Dexterity EN ISO 374-2: 2019 Clause 7.2 – Air leak EN ISO 374-2: 2019 Clause 7.3 – Water leak

EN ISO 374-5: 2016 Clause 5.3 - Protection against viruses (ISO 16604: 2004 Procedure B)

EN ISO 21420: 2020 Clause 4.2 - Innocuousness of protective gloves

CONCLUSION

The samples described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Size: S (6), M (7), L (8), XL (9), Reference number: KS-ST RT021 were found to achieve the following results:

EN ISO 21420: 2020 Clause 5.1 - See below table

EN ISO 21420: 2020 Clause 5.2 – Level 5 EN ISO 374-2: 2019 Clause 7.2 – Pass

EN ISO 374-2: 2019 Clause 7.3 – Pass EN ISO 374-5: 2016 Clause 5.3 – Pass

EN ISO 21420: 2020 Clause 4.2 - Pass PAHs, DMFA and pH value

Detailed results are included on the following page(s)

Guangdong Kingfa Sci. & Tech. Co., Ltd

SATRA Reference:

CHT0305236 /2047/Issue 2

Date:

29 January 2021

(Page 2 of 9)

Signed: Adam Zhang Pechnologist

China Testing





Testing

Testing was carried out in accordance with EN ISO 21420:2020, EN ISO 374-2: 2019.

Samples for testing were conditioned for at least 24 hours in a conditioned environment maintained at (23±2) °C and (50±5) % relative humidity.

Requirements

Table 1 - Requirements for EN ISO 21420: 2020 Clause 5.2 Dexterity

| Performance level | 1 | 2 | 3 | 4 | 5 |
|-------------------------------|------|-----|-----|-----|-----|
| Diameter of dexterity pin /mm | 11.0 | 9.5 | 8.0 | 6.5 | 5.0 |

Table 2 – Requirements for EN ISO 374-2: 2019

| Clause 7.2 Air leak | No leak to be detected | |
|-----------------------|------------------------|--|
| Clause 7.3 Water leak | No leak to be detected | |

Test Results

Table 3 – EN ISO 21420:2020 Test Results

| Clause / Test | Requirement | (MIN) | est Resu | Its | 21 % | UoM (See note ♣) | Result |
|----------------|-------------|--------------------|----------|-------------|-----------|---------------------|---------|
| | 1/21-01 | 3 | 127 | ength /mr | n, 312 | | 1. P. |
| | 200 | Size | 1 3 | 2 | 3 | | MAL |
| | 31 11 | 6 | 242 | 243 | 245 | | 71. L |
| KINDP | 27 71 | Comfortable on fit | | | 100 | | al |
| 5.1 Glove | 1600 | 7 1 | 250 | 245 | 245 | | VI IP |
| ength, comfort | N/A | Comfortable on fit | | ± 1.10 mm | N/A | | |
| and fit | 0021 | 8 | 245 | 240 | 244 | | MAL |
| | 30 P | Comfortable on fit | | | 7/2 | | 700, |
| | MUM | 9 | 247 | 245 | 240 | | 002 |
| | D 204 | Comfortable on fit | | | 1 2 | | M. |
| 20,10 | Ex. MI | Size | Minimun | n pin diame | eter / mm | INTO | 12 |
| 5.2 Dexterity | 1 21 7 8 | 6 | | 5.0 | -021 | | By. |
| | See table 1 | 7 12 | | 5.0 | W. B | N/A | Level 5 |
| | 101 1V | 8 | | 5.0 | MUL | | 215 |
| ×1. 1/2 | 21 2 | 9 | 16 | 5.0 | N | 2 2 6 | 100 |

Guangdong Kingfa Sci. & Tech. Co., Ltd SATRA Reference: CHT0305236 /2047/Issue 2

29 January 2021

(Page 3 of 9)

Signed: rechnologist **China Testing**





Table 4 - EN ISO 374-2: 2019 Test Results

| Clause / Test | Test Res | UoM (See note ♣) | Result | |
|---------------------|---|---|--------|------|
| 7.2 Air leak test | Total air pressure used Sample size 6 7 8 9 | 3.0 kPa Leaks No leaks detected No leaks detected No leaks detected No leaks detected | N/A | Pass |
| 7.3 Water leak test | Sample size 6 7 8 9 | Leaks No leaks detected No leaks detected No leaks detected No leaks detected | N/A | Pass |

Additional Information / Notes

Note ♣ – Estimated uncertainty of measurement applied at point of test (e.g. to applied force or to tolerance limits) to ensure product meets requirements of the standard

Guangdong Kingfa Sci. & Tech. Co., Ltd SATRA Reference: CHT0305236 /2047/Issue 2

Date: 29 January 2021 (Page 4 of 9)

Signed: Adam Zhang Ian Fechnologist China Testing





Protection Against Viruses Test Results

Testing was conducted at a third-party laboratory and reported under their reference 20R006813. The laboratory is CNAS accredited to ISO 17025: 2017 with ISO 16604: 2004 included in their accreditation schedule.

Table 1 - Resistance to penetration by blood-borne pathogens results

| Sample description: | | Disposable Pow number: KS-ST | der Free Nitrile Exa RT021. | amination Gloves, | Color: Blue, Refer | ence |
|---------------------|-----------|---------------------------------|--------------------------------|------------------------|---|------------|
| Test method | Specimen | Step 1 (0 kPa, 5 min) | Step 2 (14 kPa, 1min) | Step 3 (0kPa, 4min) | Titre of phage Phi-X174 (PFU /mL) | Comment |
| ISO 16604: | + control | Penetration | Penetration | Penetration | Penetration | Acceptable |
| 2004 | - control | No penetration | No penetration | No penetration | < 1 | Acceptable |
| Procedure B | 1 | Invisible penetrate | Invisible penetrate | Invisible penetrate | < 1 | Pass |
| Using retaining | 2 | Invisible penetrate | Invisible penetrate | Invisible penetrate | < 1 | Pass |
| screen | 3 | Invisible penetrate | Invisible penetrate | Invisible penetrate | < 1 | Pass |

Signed: Ada

Adam Zhang Fechnologist China Testing





Innocuousness Test Results

Testing was conducted at a third-party laboratory and reported under their reference A201123020001. The laboratory is CNAS accredited to ISO 17025: 2017.

| Sample Item | Sample Description | Location | Style |
|-------------|--|----------|-------|
| 1001 | KS-ST RT021 Blue Disposable Powder Free Nitrile Examination Gloves | Gloves | |

pH Value - EN ISO 21420:2020

Test Method I: With reference to EN ISO 4045:2018, analyzed by pH meter.

Test Method II: With reference to ISO 3071:2020, analyzed by pH meter.

| Requirement: | 3.5-9.5 |
|-----------------|---------|
| rio quii omone. | |

| (#: I) | Unit | Result | | |
|---------------------------------|--------|-------------------------|--|--|
| Test Item(s) | - | 1001 | | |
| Test Method | - | 11 | | |
| Parameter | - | * | | |
| pH Value of Extracting Solution | = 1 | 5.50 | | |
| Temp. of Aqueous Extract deg. C | | 25.1 | | |
| pH Value of Aqueous Extract | N- 1 | 6.7 | | |
| Difference Figure | N - 20 | The off of the party of | | |
| Conclusion | 5 DV / | PASS | | |

Note / Key: deg. C = degree Celsius (°C) Temp. = Temperature

Remark: Result(s) was (were) reported the average value from two trials.

Tested part(s) was/were specified by client.

Guangdong Kingfa Sci. & Tech. Co., Ltd SATRA Reference: CHT0305236 /2047/Issue 2

Date: 29 January 2021 (Page 6 of 9)

Signed: Adam Zhang And Pechnologist China Testing

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Polycyclic Aromatic Hydrocarbons (PAHs) Content - EN ISO 21420:2020

Test Method: With reference to test method PD CEN ISO/TS 16190:2013

| Maximum Allowable Limit: | Each of all listed PAHs: 1.0 mg/kg |
|-----------------------------|------------------------------------|
|-----------------------------|------------------------------------|

| Toots differents | R | 0 1 | | | |
|------------------|---------------------|-------|-------|------------|--|
| Tested Item(s) | Detected Analyte(s) | Conc. | Unit | Conclusion | |
| 1001 | ND | ND | mg/kg | PASS | |

Note / Key: ND = Not detected(<Detection Limit) Detection Limit (mg/kg): Each: 0.2;

mg/kg = milligram per kilogram = ppm = part per million

Remark: The list of polycyclic aromatic hyrdocarbons is summarized in table of Appendix.

Tested part(s) was/were specified by client.

| APPENDIX ist of Polynuclear Aromatic Hydrocarbons: | | | | | | | | |
|--|----------------------|----------|-----|--------------------------|----------|--|--|--|
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. | | | |
| 1 | Chrysene | 218-01-9 | 5 | Dibenzo (a,h) anthracene | 53-70-3 | | | |
| 2 | Benzo (a) pyrene | 50-32-8 | 6 | Benzo (b) fluoranthene | 205-99-2 | | | |
| 3 | Benzo (e) pyrene | 192-97-2 | 7 | Benzo (j) fluoranthene | 205-82-3 | | | |
| 4 | Benzo (a) anthracene | 56-55-3 | 8 | Benzo (k) fluoranthene | 207-08-9 | | | |

Dimethylformamide(DMFA) Content - EN ISO 21420:2020

Test Method: With reference to EN 16778:2016, and then analyzed by Gas Chromatograph Mass Spectrometer.

| Why " " The | 1P1 001 0 | Result | 31 002 |
|------------------------|----------------------------|--------------|-------------------------|
| Analyte | Unit | Test Item(s) | Client's Requirement |
| 01 0 N | F. INTA | J 1001 | 187 187 |
| Dimethylfomamide(DMFA) | ylformamide(DMFA) mg/kg ND | | 1000 |
| Conclusion | 112 120 | PASS | D. B. M |

Note / Key: ND = Not detected (<Detection Limit) Detection Limit (mg/kg): 5

mg/kg = milligram per kilogram = ppm = part per million

*** End of Report ***

Guangdong Kingfa Sci. & Tech. Co., Ltd SATRA Reference: CHT0305236 /2047

Date: 2

CHT0305236 /2047/Issue 2 29 January 2021

(Page 7 of 9)

Signed: Adam Zhang han Pechhologist China Testing





SATRA Technology Centre Ltd Wyndham Way, Telford Way, Kettering, Northamptonshire, NN16 8SD United Kingdom Tel: +44 (0) 1536 410000 Fax +44 (0) 1536 410626 email: info@satra.com www.satra.com



Customer details: SATRA Technology Services (Dongguan) Ltd SATRA reference: CHM0305368/2048/LC

Unit 110, Xinzhongyin Garden

Hongwei Road

Xiping, Nancheng District DONGGUAN CITY Guangdong Province

China 523079 Your reference: CHT0305236

Date of report: 21st December 2020 Samples received: 23rd November 2020

Samples received: 23% November 2020

Date(s) work 16th carried out: 2020

16th to 21st December 2020

TECHNICAL REPORT

SATRA Technology Services (Dongguan) Ltd:

Customer:GUANGDONG KINGFA SCI.&TECH. CO., LTD

NO.28 Delong Avenue, Shijiao Town

Qingcheng District Qingyuan Guangdong China

Subject: EN ISO 374-4:2019 determination of resistance to degradation by dangerous

chemicals on gloves described as Disposable Powder Free Nitrile Examination

Gloves, Color: Blue, Reference number: KS-ST RT021.

Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

Tests marked ≠ fall outside the UKAS Accreditation Schedule for SATRA. All interpretations of results of such tests and the comments based upon them are outside the scope of UKAS accreditation and are based on current SATRA knowledge.

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The uncertainty of the results (UoM) in this report is based on a standard uncertainty multiplied by a coverage factor k=2, which provides a coverage probability of approximately 95%.

Report signed by: Lucy Cove Position: Technologist

Department: Chemical & Analytical Technology

(Page 1 of 5)

l-ine







WORK REQUESTED:

Samples of gloves described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021 were received on the 23rd November 2020 for testing in accordance with EN ISO 374-4:2019.

SAMPLE SUBMITTED:



FECHNOLOGY

Sample described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021.

CONCLUSION:

When assessed in accordance with EN ISO 374-4:2019 the samples of gloves described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021 achieved the following degradation results:

| Chemical | Mean degradation / % | |
|---------------------------------------|----------------------|--|
| 40% Sodium hydroxide (CAS: 1310-73-2) | -65.6 | |

TESTING REQUIRED:

 EN ISO 374-4:2019. Protective gloves against dangerous chemicals and microorganisms. Part 4: Determination of resistance to degradation by chemicals.

SATRA Technology Services (Dongguan) Ltd SATRA Reference: CHM0305368/2048/LC/B Date: 21st December 2020

(Page 2 of 5)







RESULTS:

| Sample description: | Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021 | | |
|--|---|---------|---|
| Challenge chemical: | 40% Sodium hydroxide (CAS: 1310-73-2) | | |
| Test temperature / °C: | (23 ± 1) | | |
| D | Glove 1 | Glove 2 | Glove 3 |
| Degradation / %: | -56.0 | -61.2 | -79.5 |
| Mean degradation (DR) / %: | -65.6 | | *************************************** |
| Standard deviation (σ _{DR}) / %: | 12.4 | | |
| UoM / ± %: | 9.1 | | |
| Appearance of samples after testing: | ples after testing: No change | | |

NOTE: Lining materials were removed from the specimen in order to perform the test.

21st December 2020

Signed:

l-ine





SATRA Technology Centre Ltd Wyndham Way, Telford Way, Kettering, Northamptonshire, NN16 8SD United Kingdom Tel: +44 (0) 1536 410000 Fax +44 (0) 1536 410626 email: info@satra.com



SATRA Technology Services (Dongguan) Ltd SATRA reference: CHM0305368/2048/LC Customer details:

Unit 110, Xinzhongyin Garden

Hongwei Road Your reference:

Xiping, Nancheng District DONGGUAN CITY Guangdong Province

China 523079 CHT0305236

Date of report: 21st December 2020 Samples received: 23rd November 2020

Date(s) work

4th to 8th December

carried out:

TECHNICAL REPORT

SATRA Technology Services (Dongguan) Ltd:

Customer: GUANGDONG KINGFA SCI.&TECH. CO., LTD

NO.28 Delong Avenue, Shijiao Town

Qingcheng District Qingyuan Guangdong China

Subject: EN 16523-1:2015+A1:2018 resistance to permeation by chemicals on gloves

described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue,

Reference number: KS-ST RT021.

Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

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A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in the report.

The uncertainty of the results (UoM) in this report is based on a standard uncertainty multiplied by a coverage factor k=2, which provides a coverage probability of approximately 95%.

Report signed by: **Lucy Cove** Position: Technologist

Department: Chemical & Analytical Technology

(Page 1 of 6)







WORK REQUESTED:

Samples of gloves described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021 were received on the 23rd November 2020 for testing in accordance with EN 16523-1:2015+A1:2018 and assessment in accordance with the requirements of EN ISO 374-1:2016+A1:2018.

SAMPLES SUBMITTED:



TECHNOLOGY

Samples described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021

CONCLUSION:

When assessed in accordance with the requirements of EN ISO 374-1:2016+A1:2018 the samples of gloves described as Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021 achieved the following performance levels:

| Chemical | Performance level | |
|---------------------------------------|-------------------|--|
| 40% Sodium hydroxide (CAS: 1310-73-2) | 6 | |

Full results are reported in the following tables.

TESTING REQUIRED:

 EN 16523-1:2015+A1:2018 - Determination of material resistance to permeation by chemicals -Part 1: Permeation by liquid chemical under conditions of continuous contact

SATRA Technology Services (Dongguan) Ltd SATRA Reference: CHM0305368/2048/LC/A Date: 21st December 2020

(Page 2 of 6)







RESULTS AND REQUIREMENTS:

EN ISO 374-1:2016+A1:2018 - Protective gloves against dangerous chemicals and micro-organisms - Part 1: Terminology and performance requirements for chemical risks. Table 1: Permeation performance levels.

| Permeation performance level | Measured breakthrough time (minutes) |
|------------------------------|--------------------------------------|
| 1 | >10 |
| 2 | >30 |
| 3 | >60 |
| 4 | >120 |
| 5 | >240 |
| 6 | >480 |

Performance levels are based on the lowest individual result achieved per chemical.

SATRA Technology Services (Dongguan) Ltd SATRA Reference: CHM0305368/2048/LC/A Date: 21st December 2020

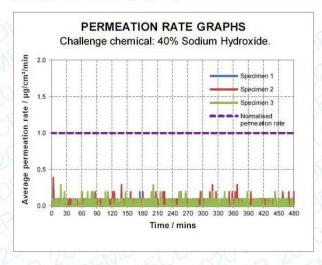
(Page 3 of 6)







| Test/Property | Sample reference: | Disposable Powder Free Nitrile Examination Gloves, Color: Blue, Reference number: KS-ST RT021 | | Performance |
|------------------------------|-------------------|---|--|-------------|
| | | Chemical: 40 | 0% Sodium hydroxide | |
| | | Normalised permeatio | n rate (NPR): 1 μg/cm²/min | |
| EN Test | | Detection technique: | Conductimetry (continuous measurement) | |
| +A1:2018 in | information: | Collection medium: [| Deionised water (closed loop) | |
| accordance with SATRA | | Collection medium still (each cell constant to with | | |
| SOP CAT-009 | | Test temperature: | (23 ± 1) °C | Level 6 |
| Using PTFE | Specimen | Thickness (mm)△ | Breakthrough time (mins) | |
| permeation cells | 1 | 0.09 | >480 | |
| with standardised dimensions | 2 | 0.09 | >480 | |
| | 3 | 0.09 | >480 | |
| | | Test result: | >480 | |
| | | UoM: | <1 | |
| Visual appe specimens a | | | Discoloured | 20. |



△ EN 16523-1:2015+A1:2018 does not require the test specimen thicknesses to be reported, this information is indicative only.

SATRA Technology Services (Dongguan) Ltd SATRA Reference: CHM0305368/2048/LC/A Date: 21st December 2020

(Page 4 of 6)



EU-Type-Examination Certificate

Notified Body 2777



Issued to:

Guangdong Kingfa Sci. & Tech. Co., Ltd NO.28 Delong Avenue Shijiao Town Qingcheng District Qingyuan City Guangdong Province 511500

Notified Body: 2777

SATRA customer number: P21017

EU Type-Examination Certificate

Certificate number: 2777/15747-02/E00-00

This EU Type-Examination Certificate covers the following product group(s) supported by testing to the relevant standards/technical specifications and examination of the technical file documentation:

Following the EU Type-Examination this product group has been shown to satisfy the applicable essential health and safety requirements of Annex II of the PPE Regulation (EU) 2016/425 as a Category III product.

Product reference: Description:

KS-ST RT021 Disposable Nitrile Glove, Powder-Free

Colour: Blue

Sizes: 6/S, 7/M, 8/L, 9/XL Classification:

EN ISO 374-1:2016+A1:2018 /Type C Level EN ISO 374-4:2019 Degradation %

40% Sodium Hydroxide (K)

-65.6

EN ISO 374-5:2016

Protection against Bacteria and Fungi Pass Protection against Viruses Pass

Standards/Technical specifications applied: EN ISO 21420:2020; EN ISO 374-1:2016+A1:2018; EN ISO 374-5:2016

Technical reports/Approval documents:

SATRA: CHT0305236/2047/Issue 2, CHM0305368/2048/LC/A, CHM0305368/2048/LC/B

Signed on behalf of SATRA:

abl

Quincey Brown

Date first issued: 08/02/2021
Date of issue: 19/02/2021
Expiry date: 08/02/2026

Page 1 of 2



ISO 10993-10:2010









Amendment Report

Report Number: SDWH-M202004118-2(E) Amd01 (Replace SDWH- M202004118-2 (E))

Skin Sensitization Test of Single-use medical rubber examination gloves

According to ISO 10993-10:2010 Guinea Pig Maximization Test 0.9% Sodium Chloride Injection Extract

Sponsor: GUANG DONG KINGFA SCI.& TECH.CO.,LTD

No.28 Delong Ave., Shijiao Town, Qingcheng Qistrick Address:

yuan, Guangdong, China



Sanitation & Environment Technology Institute, Seoch W University



Sanitation & Environment Technology Institute, Soochow University Amd01

Report No.: SDWH-M202004118-2(E)

Summary

1 Test Article

| Test Article Name | Single-use medical rubber examination gloves | |
|-------------------|---|--|
| Manufacturer | GUANG DONG KINGFA SCI.& TECH.CO.,LTD | |
| Address | No.28 Delong Ave.,Shijiao Town,Qingcheng District,Qing yuan,Guangdong,China | |
| Model | KS-ST RT021 | |
| Lot/Batch | 25007011 | |

2 Main Reference

ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization

3 Test Method

Potential skin sensitization of test article was evaluated using guinea pig maximization test in accordance with ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization.

Study protocol number: SDWH-PROTOCOL-GLP-M202004118-2.

4 Conclusion

Under the conditions of this study, the test article extract showed no significant evidence of causing skin sensitization in the guinea pig. The positive rate of sensitization was 0%. No evidence of skin sensitization in guinea pigs was found.



ISO 10993-10:2010







Amendment Report

Report Number: SDWH-M202004118-3(E) Amd01 (Replace SDWH- M202004118-3 (E))

Skin Sensitization Test of Single-use medical rubber examination gloves

According to ISO 10993-10:2010 Guinea Pig Maximization Test Sesame Oil Extract

Sponsor: GUANG DONG KINGFA SCI.& TECH.CO.,LTD

No.28 Delong Ave., Shijiao Town, Qingcheng Oktrick @ Address: yuan, Guangdong, China



Sanitation & Environment Technology Institute, Seoch Wurversity



Sanitation & Environment Technology Institute, Soochow University Amd01

Report No.: SDWH-M202004118-3(E)

Summary

1 Test Article

| Test Article Name | Single-use medical rubber examination gloves |
|-------------------|--|
| Manufacturer | GUANG DONG KINGFA SCI.& TECH.CO.,LTD |
| Address | No.28 Delong Ave., Shijiao Town, Qingcheng District, Qing yuan, Guangdong, China |
| Model | KS-ST RT021 |
| Lot/Batch | 25007011 |

2 Main Reference

ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization

3 Test Method

Potential skin sensitization of test article was evaluated using guinea pig maximization test in accordance with ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization.

Study protocol number: SDWH-PROTOCOL-GLP-M202004118-3.

4 Conclusion

Under the conditions of this study, the test article extract showed no significant evidence of causing skin sensitization in the guinea pig. The positive rate of sensitization was 0%. No evidence of skin sensitization in guinea pigs was found.







ISO 10993-10:2010







Amendment Report

Report Number: SDWH-M202004118-4(E) Amd01 (Replace SDWH- M202004118-4 (E))

Skin Irritation Test of Single-use medical rubber examination gloves

According to ISO 10993-10:2010 0.9% Sodium Chloride Injection Extract

Sponsor: GUANG DONG KINGFA SCI.& TECH.CO.,LTD

No.28 Delong Ave., Shijiao Town, Qingcheng Oktrick Gin Address: yuan, Guangdong, China



Sanitation & Environment Technology Institute, Seoch Wurversity



Sanitation & Environment Technology Institute, Soochow University Amd01

Report No.: SDWH-M202004118-4(E)

Summary

1 Test Article

| Test Article Name | Single-use medical rubber examination gloves |
|-------------------|---|
| Manufacturer | GUANG DONG KINGFA SCI.& TECH.CO.,LTD |
| Address | No.28 Delong Ave.,Shijiao Town,Qingcheng District,Qing yuan,Guangdong,China |
| Model | KS-ST RT021 |
| Lot/Batch | 25007011 |

2 Main Reference

ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization

3 Test Method

The extract of test article was evaluated for skin irritation. With ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization. Study protocol number: SDWH-PROTOCOL- GLP-M202004118-4.

4 Conclusion

The test result showed that the response of the test article extract was categorized as negligible under the test condition.



ISO 10993-10:2010







Amendment Report

Report Number: SDWH-M202004118-5(E) Amd01 (Replace SDWH- M202004118-5 (E))

Skin Irritation Test of Single-use medical rubber examination gloves

According to ISO 10993-10:2010 Sesame Oil Extract

Sponsor: GUANG DONG KINGFA SCI.& TECH.CO.,LTD

No.28 Delong Ave., Shijiao Town, Qingcheng Qistrick (in Address: yuan, Guangdong, China



Sanitation & Environment Technology Institute, Seoch Waversity



Sanitation & Environment Technology Institute, Soochow University Amd01

Report No.: SDWH-M202004118-5(E)

Summary

1 Test Article

| Test Article Name | Single-use medical rubber examination gloves |
|-------------------|--|
| Manufacturer | GUANG DONG KINGFA SCI.& TECH.CO.,LTD |
| Address | No.28 Delong Ave., Shijiao Town, Qingcheng District, Qing yuan, Guangdong, China |
| Model | KS-ST RT021 |
| Lot/Batch | 25007011 |

2 Main Reference

ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization

3 Test Method

The extract of test article was evaluated for skin irritation. With ISO 10993-10:2010 Biological evaluation of medical devices — Part 10: Tests for irritation and skin sensitization.

Study protocol number: SDWH-PROTOCOL- GLP-M202004118-5.

4 Conclusion

The test result showed that the response of the test article extract was categorized as negligible under the test condition.



PACKING INFORMATION

EN 374

Paper Box

- Size:225*120*63 mm
- Gross weight:460±10 g



100 pcs



Carton

- 10 boxes/carton
- Size:330*250*240 mm
- Gross weight: $4950 \pm 500 \,\mathrm{g}$

















PACKING INFORMATION

EN 455

Paper Box

- Size:225*120*63 mm
- Gross weight:460±10 g



100 pcs





Carton

- 10 boxes/carton
- Size:330*250*240 mm
- Gross weight: $4950 \pm 500 \,\mathrm{g}$

















Contact your KINGFA representative for more information

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