

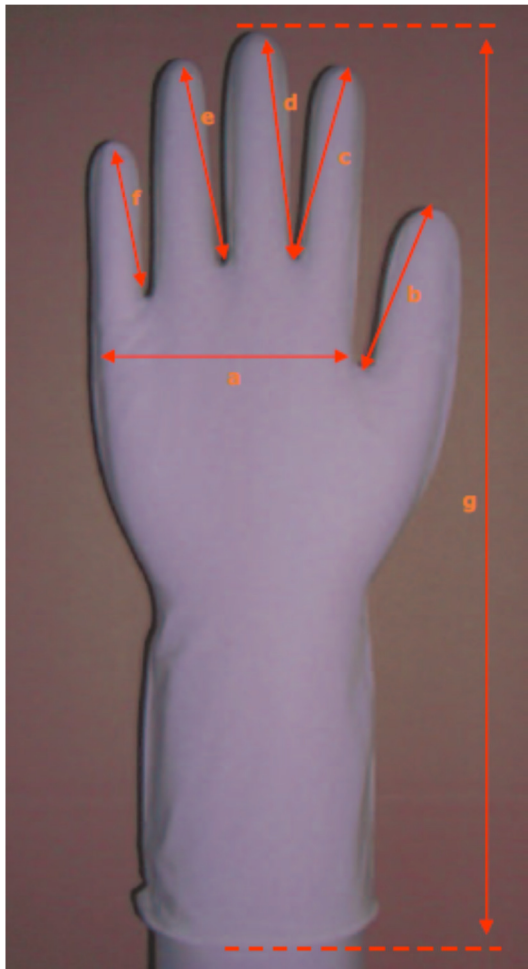


Cleansem Sdn Bhd (319007-A)

ISO 9001: 2008 Quality Management System
No. 12, Lorong Batu Uban 2, Century Garden
11700 Penang.
Malaysia
Tel: + 6 04 6570 400
Fax : + 6 04 6570 408

Product Technical Data Sheet

Product Dimensional Measurement Description



Description of Dimension:-

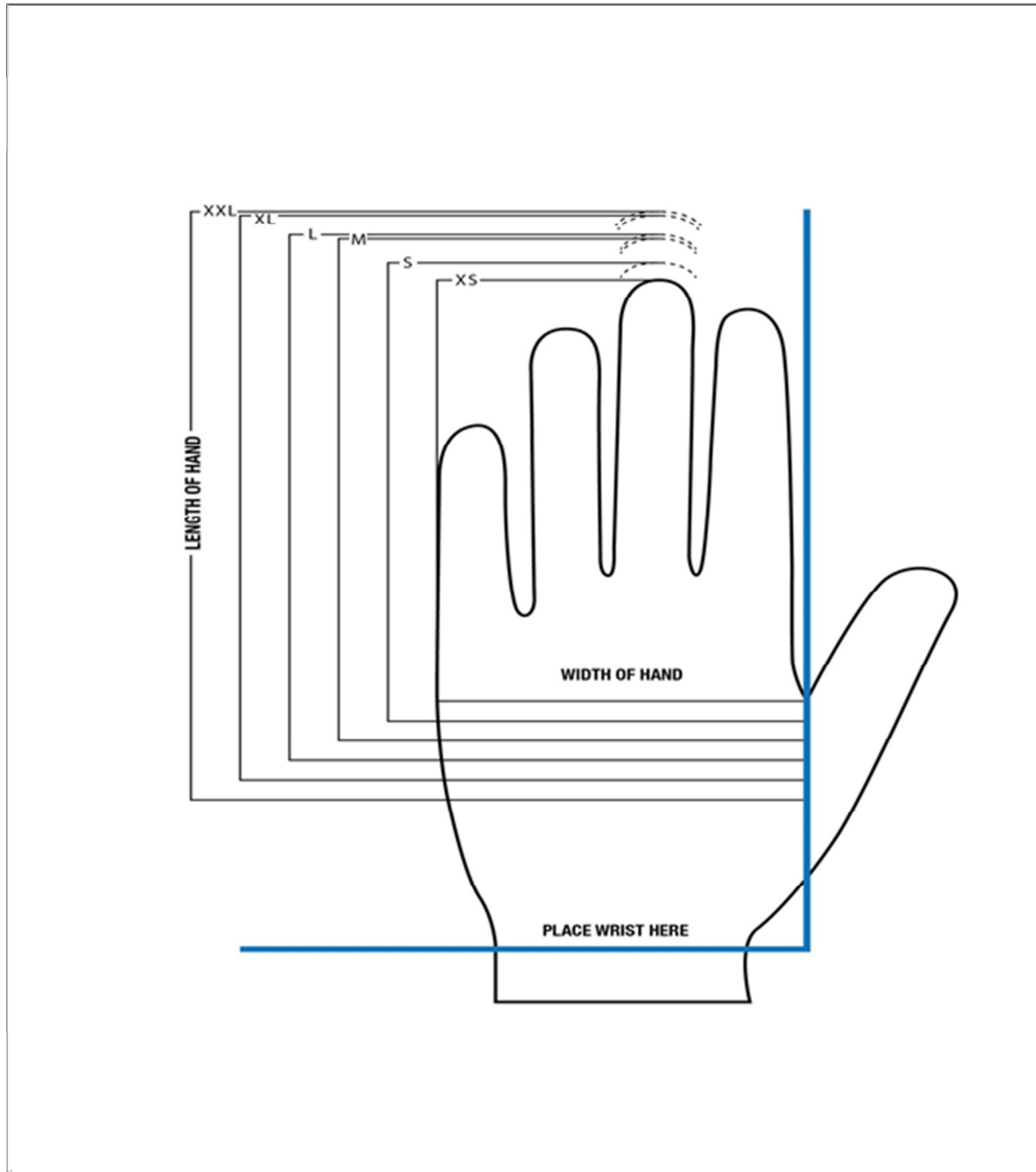
- a) Palm width
- b) Length first finger
- c) Length second finger
- d) Length third finger
- e) Length fourth finger
- f) Length fifth finger
- g) Total glove length



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Glove Sizing Chart





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PRODUCT TECHNICAL DATA SHEET

MATERIAL SAFETY DATA SHEET

CLEANROOM NITRILE GLOVES

Date: 27.09.2012

Revision: 2

Primary Material and Ingredients Information

| | |
|------------------|--|
| Primary Material | Copolymer of Acrylonitrile / Butadiene / Methylacrylic Acid |
| Ingredients | 1) Nitrile latex |
| | 2) Zinc Oxide |
| | 3) Sulphur |
| | 4) Titanium Dioxide |
| | 5) Sodium naphthalene sulfonate formaldehyde condensate |
| | 6) Potassium Hydroxide |
| | 7) Butylated reaction product of p- cresol and dicyclopentadiene |
| | 8) Accelerators containing zinc diethyldithiocarbamate, Zinc dibutyldithiocarbamate and Zinc 2 – mercaptobenzothiozole |



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PRODUCT TECHNICAL DATA SHEET

3) Hazard Identification

All Chemicals are non- toxic / non hazardous

4) Physical and Chemical Properties

Tensile Strength : ≥ 18 Mpa

Elongation at break : $\geq 500\%$

| | |
|----------------|--|
| Appearance | White to off white colour |
| Odor | Normal nitrile rubber smell |
| Orientation | Ambidextrous |
| Surface Finish | Smooth with beaded cuff and textured finger tips |
| Sterility | Non – sterile |
| Packaging | 100 pieces per double bag and 10 bags per liner and carton |



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5) Toxicological Information

- a) The presence of residual ; ingredients used in the manufacture of the gloves may result in Type IV hypersensitivity e.g., Allergies contact dermatitis, chemical allergy when come into contact with the skin.
- b) Reactions include itching , burning sensation, blistering, redding and pain
- c) In chronic and very serve cases, it may results in dry and thickened skin, cracks, peeling and crusting

6) Storage, Handling and Usage Information

A) Storage

This product must be stored in its original packing in cool, dry and well – ventilated area. It should be located away from dust, direct sunlight, moisture, x-rays and excessive heat. Improper storage may result in shortening of its shelf life or change in product properties.

B) Handing and Usage Recommendation

- I. As these are CLEANROOM GLOVES meant for use in cleanroom and critical environment, users are strictly advice to follow their adopted protocols during transfer of the gloves from the store to any other intermediate area and production floors as a preventive measure against external factors that may affect the product properties.
- II. To prevent external contamination, the polybags must not be opened except inside the passbox or approved area (outer polybag only) and inside the cleanroom or point of of use (inner polybag only).
- III. Wash and dry hands before donning gloves and after use. Wear gloves that fit well and trim nails before wearing. Gloves are meant for single use only. Do not reuse gloves. User is responsible to determine the proper application of the gloves in a given procedure.

7) First Aid Measure

Not applicable

8) Fire and Explosion Hazard

Non combustible at ambient temperature
Combustible if ignited
No explosive hazard



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9) Emergency Procedure and other General Information

This product intended for use as a hand protective device and not as a toy which may cause suffocation if wrongly used. Keep away from young children and people incapable of using them properly irritation continues.

If encounter skin irritation during and after used, wash thoroughly with soap and water. Consult a physician if necessary.

If comes into contact with eye and nose, wash thoroughly with a facial cleanser and contact a physician if irritation continues.

10) Exposure Protective Equipment

Not applicable

11) Stability and Reactivity

The product is stable under recommended storage conditions as per section6.

12) Disposable Information

It is recommended that all used gloves must be disposed off in a hygienic and effective manner in accordance to local regulations and practice. Disposal can be through approved and authorized landfills or through incinerators.

Poisonous gas (HCN) may be generated during burning in the incinerator and it should be burnt at temperature above 850° c.

13) Ecological Information

Bio-compatibility: The product is not classified as dangerous for the environment.

14) Transport Information

The product is not classified as dangerous for carriage.

15) Regulatory Information

Not applicable



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Product Description

| Description | |
|--------------------------------|---|
| Material | Copolymer of Acrylonitrile / Butadiene / Methylacrylic acid |
| Color | White to Off White |
| Design | Smooth with beaded cuff and textured finger tips |
| Components Used in Formulation | Complies with FDA 21CFR and Number |

Dimensional Parameters

| Parameter | Extra Small (xs) | Small (s) | Medium (M) | Large (L) | Extra Large (XL) | Extra Extra Large (XXL) |
|--------------------------------------|------------------|-----------|------------|-----------|------------------|-------------------------|
| Glove Weight (gram /pc) | 5.5 ± 5 | 6.0 ± 0.5 | 6.5 ± 0.5 | 7.0 ± 0.5 | 7.5 ± 0.5 | 8.0 ± 0.5 |
| Palm Width (mm) | 75 ± 5 | 85 ± 5 | 95 ± 5 | 105 ± 5 | 115 ± 5 | 125 ± 5 |
| Length first finger | 54 | 57 | 58 | 65 | 67 | 69 |
| Length second finger | 65 | 70 | 75 | 79 | 82 | 83 |
| Length third finger | 75 | 79 | 85 | 90 | 91 | 92 |
| Length fourth finger | 67 | 74 | 77 | 79 | 81 | 83 |
| Length fifth finger | 47 | 55 | 58 | 63 | 64 | 65 |
| Total Length (mm) | Min 300 | | | | | |
| Thickness – Cuff (mm) | 0.08 – 0.10 | | | | | |
| Thickness – Palm (mm) | 0.10 – 0.12 | | | | | |
| Thickness – Finger (mm) | 0.12 – 0.14 | | | | | |
| Total Surface Area(cm ²) | 910 ± 5% | 1037 ± 5% | 1147 ± 5% | 1208 ± 5% | 1330 ± 5% | 1493 ± 5% |



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Physical Properties

| Parameter | Specification | Test Method |
|------------------------|---------------|-------------|
| Tensile | ≥ 18 | ASTM D 412 |
| Modules @ 300 (MPa) | ≤ 9 | ASTM D 412 |
| Ultimate Elongtion (%) | ≥ 500 | ASTM D 412 |

Packaging Protocol

50 pieces x 2 (100 pieces) in a sealed cleanroom polybag / double bagged
10 bags (1000 pieces) in an outer liner / double walled export carton
IPA Resistant printing ink used on all stickers and polybags

Special Features

- 1) Beaded cuff for easy donning and better fit
- 2) Tacky grip and non – slip performance allowing better hold on components
- 3) Non- staining and non- smudging even during prolong donning thereby ease risk of contamination to parts or components that are being handled
- 4) Textured finger tip with tapered finish for better fit
- 5) Generally high permeation resistant properties to a wide variety of solvents, acids and bases
- 6) High physical strength and resistant to tear



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Cleansem For Cleanroom Solution

Description

This proposal is derived from Cleansem Competency, **Specializes in Critical Cleanroom Services; ESD Garments & Disposable products since Year 1994.**

- ◆ Since 1994 , Cleansem have been recognized from > 60 based customers on its list of Reliable Partner on Customer's Centric Company
- ◆ CS is Certified Under **ISO 9001-2008**
- ◆ CS Cleanroom Facility is Designed & Dedicated Under Class 10 & Class 10k → **ISO CLASS 4 & CLASS 7**
- ◆ **2012 → Diversify To Technology Solution Provider**
Strategically aligned with OEM from Germany, USA ,Dutch, Korea, Singapore

Support

Support services are offered during the Urgency Period as follows

The Office / Cleansem Sdn Bhd
Tel.+604 6570400 / + 604 659 9959

The Mobile:

FN Leong
+ 6 012 4982655

Celine Teh
+ 6012 422 2655

Cindy Leong
+6012 544 4220