TOP GLOVE

TOP QUALITY, TOP EFFICIENCY

ANALYTICAL SERVICES TESTING

provided by R&D Centre

A. Analytical Testing Lab

High Performance Liquid Chromatography/Gel Permeation Chromatography (HPLC/GPC)

- *Accelerator Testing (ASTM D7558:09)*
- *Phenol Testing (KFDA standard)*
- *Formaldehyde Testing (KFDA standard)*
- *Molecular Weight Determination (In house method)*

Gas Chromatography Mass Spectrometry (GC MS)

- *Unknown organic component (using pyrolyzer with in house method)*

Gas Chromatography Flame Ionization Detector (GC FID)

- *Volatile component (KFDA II standard 2020)*

Scanning Electron Microscope / Energy Dispersive X ray (SEM/EDX)

- *Morphology*
- *Chemical composition*

Thermogravimetric Analyzer/ Differential Scanning Calorimeter (TGA/DSC)

- *Thermal decomposition, glass transition temperature, melting temperature, onset oxidation temperature, crystallization temperature and activation energy (all in house method)*

EU Overall Migration Test (EN 10/2011)

- *Acetic acid and Ethanol*

Aqueous pH test (glove) EN ISO 21420

General Testing

- *Particle size*
- *Contact angle*
- *Surface tension*
- *Stability*
- *Zeta potential*
- *FTIR*
- *XRF*

OTHERS

- *Glove migration test*

a) *US FDA 21 CFR 177.2600*

b) *US FDA 21 CFR 177.1520*

c) *Consumption of KMnO4 (KFDA March 2015 and GB 31604.2:2016)*

B. Waste Water Lab

Waste Water Testing*

- *pH (APHA 4500-H+ B)*
- *Zinc Content (MN method 91895: Test 1-95, 03.14)*
- *Iron Content (MN method 91836: Test 1-36, 11.14)*
- *Chemical Oxygen Demand*
  - *i. Range 15 – 160mg/L: MN Method 985926; Test 0-26, 10.12*
  - *ii. Range 100 – 1500mg/L ; MN Method 985929; Test 0-29, 05.13*
- *Biochemical Oxygen Demand (APHA 5210 B and 4500-O G)*
- *Free Chlorine (MN method 98017: Test 0-17, 10.14)*
- *Oil and Grease (APHA 5520 B)*
- *Total Suspended Solid (APHA 2540 D)*
- *Ammoniacal Nitrogen (APHA 4500-NH3 D)*
- *Phenol (MN method 91875: Test 1-75, 02.20)*


STANDARDS MALAYSIA
Certificate of Accreditation

C. Microbiological Lab

Glove Bioburden (In-House Method Based on INMETRO NR 332/2012)

- *Total Bacteria Count*
- *Total Yeast/Mold Count*

Water sample

- *Heterotrophic Plate Count/ Total Bacteria Count (APHA 9215 Heterotrophic Plate Count : 9215 B Pour Plate Method)*
- *Total Yeast/Mold Count (APHA 9610 Detection Of Fungi : 9610 B Pour Plate Method)*

Solution sample (USP61)

- *Total Aerobic Microbial Count*
- *Total Yeast/Mold Count*

ACCREDITED

ISO/IEC17025(SAMM713)

Remark: Testing with * is accredited.

All accredited testing will be conducted in Top Glove R&D Centre accredited labs.

D. Personal Protective Equipment (PPE) Lab

Determination of Material Resistance to Permeation by Chemical (EN 16523-1:2015+A1:2018)

Code Letter	Chemical
A	Methanol
B	Acetone
C	Acetonitrile
D	Dichloromethane
F	Toluene
H	Tetrahydrofuran
I	Ethyl Acetate
J	n-Heptane
K*	Sodium Hydroxide 40%
L*	Sulphuric Acid 96%
M*	Nitric Acid 65%
N*	Acetic Acid 99%
O*	Ammonium Hydroxide 25%

Elemental Analysis using MPAES

Remark: upon discussion for standard method used

Protective Glove against Mechanical Risk (EN 388:2016+A1:2018)*

- *Abrasion (1-8000 cycles)*
- *Blade Cut (0.1 – 20.0 (Index)*
- *Puncture (0 – 200 N)*
- *Tear (0 – 100 N)*

Tensile Testing Properties

- *Force at Break (N) EN 455-2:2015*
- *ISO37*
  - *i. ISO 10282:2014 (Surgical Examination Gloves)*
  - *ii. ISO 11193-1:2020 (Medical Examination Gloves)*
- *ASTM D412-16*
  - *i. ASTM D3577:2019 (Rubber Surgical Gloves)*
  - *ii. ASTM D3578:2015 (Rubber Examination Glove)*
  - *iii. ASTM D6319:2019 (Nitrile Examination for Medical Application)*

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Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting (ASTM D1894-14)

Aqueous Extractable Protein Content (ASTM D5712-15 and EN455-3:2015)*

Remark: ASTM D5712-15 using Modified Lowry Method

Determination of resistance to degradation by chemicals (EN 374-4:2013)

ACCREDITED

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For testing that is not listed here, you are welcome to send inquiry to us.

Kindly email us for quotation.

Email: RnDCentreLab@topglove.com

Emails of PICs:

Dr. Wong Sze Ting
wongst@topglove.com.my

Ms. Noor Maziyah Bt. Zainal Abidin
n_maziyah@topglove.com.my

Ms. Wan Nur Fadhilah Bt Shamsudin
wan_nur@topglove.com.my