



ANALYTICAL LABORATORIES (SINGAPORE) PTE. LTD

Analytical Chemists; Environmental and Materials Testing

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CO. REG NO : 197302347G GST REG NO: M2-0017430-5

REPORT

Lab No : AC/EL/7040A/13

Total Pages : 2

Sample Description : One sample of Nitrile Glove

Date Received : 16/10/2013

Company Name : Brightway Holdings Sdn. Bhd

Date Reported : 22/10/2013

Lot 1559, Jalan Istimewa
Batu Belah, 42100 Klang
Selangor Darul Ehsan
Malaysia

The sample consisted of 10 pieces of Nitrile Glove and marked: -

Product Code: NACFT 300
Standard Nitrile CleanRoom Gloves
300MM / Finger Textured
Lot No: 3K11 154B, Size: Medium

On Electro-Static Discharge (ESD) analysis, the following results were obtained: -

10⁻⁸

SIM KOK HAI
DIRECTOR
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Date Receive : 16-Oct-13

Sample Descriptio : Nitrile Gloves

Date Reporte : 22-Oct-13

Company Name : Brightway Holdings Sdn. Bhd.

On Electrostatic Discharge (ESD) analysis, the following results were obtained:

Test Conditions I: 23±1°C / 50% RH / 48 hours

Gloves	Surface Resistance (Ohms) (Double Layers)	Volume Resistance (Ohms) (Hand to Hand)	Tribo Charge (Volts) (Glove to Glove)	Decay Time (Seconds) (1000 volts to 10 volts)
1	6.9E+07	1.9E+05	6	0.0
2	1.4E+07	2.2E+05	6	0.0
3	7.0E+07	2.2E+05	9	0.0
4	3.5E+07	2.9E+05	6	0.0
5	1.2E+07	2.5E+05	5	0.0
6	2.3E+07	3.1E+05	7	0.0
Average	3.7E+07	2.5E+05	7	0.0
Minimum	1.2E+07	1.9E+05	5	0.0
Maximum	7.0E+07	3.1E+05	9	0.0

Test Conditions II: 23±1°C / 12% RH / 48 hours

Gloves	Surface Resistance (Ohms) (Double Layers)	Volume Resistance (Ohms) (Hand to Hand)	Tribo Charge (Volts) (Glove to Glove)	Decay Time (Seconds) (1000 volts to 10 volts)
1	1.2E+10	2.9E+05	12	0.0
2	1.4E+10	3.1E+05	8	0.0
3	3.3E+10	3.0E+05	8	0.0
4	1.0E+10	3.1E+05	5	0.0
5	1.7E+10	3.0E+05	9	0.0
6	1.6E+10	3.3E+05	6	0.0
Average	1.7E+10	3.1E+05	8	0.0
Minimum	1.0E+10	2.9E+05	5	0.0
Maximum	3.3E+10	3.3E+05	12	0.0





TEST REPORT

(This Report is issued subject to the terms & conditions set out below)

Subject : ESD analysis on Glove samples submitted by Brightway Holdings Sdn Bhd on 04/06/2012 and test commenced on 04/06/2012.

Tested For : **Brightway Holdings Sdn Bhd**
Lot 1559, Jalan Istimewa
Batu Belah, 42100 Klang
Selangor Darul Ehsan, Malaysia
Attn : V Nadarajan

Test Method : ESD Analysis
- Volume Resistivity : Reference to EOS/ESD 11.12
- Surface Resistivity : Reference to EOS/ESD 11.11
- Tribo Charge : Rubbing Method using Volt Meter
- Static Decay Time : Reference to FTM STD 101C.Method 4046

Product Description : Nitrile Powder Free Gloves 300mm / Tacky / Without TiO2 / Finger Textured / Class 100
Product Code : NACFT 300
Lot No. : 2E28 182 B
Size : M
Quantity : 50pcs

Results :

	Ambient RH at 23°C for 48 hours				12%RH at 23°C for 48 hours		
	Volume Resistivity (ohm.cm)	Surface Resistance (ohms)	Tribocharge (volts)	Static Decay (s)	Volume Resistivity (ohm.cm)	Surface Resistance (ohms)	Static Decay (s)
Sample 1	1.8E+10	1.7E+09	4	0.11	1.7E+13	1.1E+11	0.68
Sample 2	4.9E+10	3.1E+09	5	0.09	2.4E+13	9.3E+10	0.77
Sample 3	2.0E+10	1.1E+09	9	0.11	3.1E+13	1.2E+11	0.73
Sample 4	2.1E+10	6.0E+08	11	0.07	2.1E+13	8.5E+10	0.68
Sample 5	3.6E+10	1.3E+09	9	0.08	1.5E+13	1.2E+11	0.59
Sample 6	2.4E+10	9.9E+08	6	0.09	1.6E+13	1.0E+11	0.77
Minimum	1.8E+10	6.0E+08	4	0.07	1.5E+13	8.5E+10	0.59
Maximum	4.9E+10	3.1E+09	11	0.11	3.1E+13	1.2E+11	0.77
Average	2.8E+10	1.5E+09	7	0.09	2.1E+13	1.0E+11	0.70
Std. Dev.	1.2E+10	8.8E+08	3	0.02	6.1E+12	1.4E+10	0.07


 Zhi Pei Lei
 Certified Engineer
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LEI ZHI PEI
 MANAGER
 BIOLOGICAL & CHEMICAL TECHNOLOGY DIVISION

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