



# NM LABORATORY SDN. BHD. (563645-P)

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**LABORATORY TESTINGS AND ANALYSIS CONSULTANCY**



MS ISO/IEC 17025  
TESTING  
SAMM NO. 188

## TEST REPORT

**To :** YUREKA SDN.BHD.  
No.16, Jalan Jalak 2,  
Taman Sri Bahtera,  
Batu 5, Jalan Cheras,  
56100 Kuala Lumpur.  
Attn : Mr. Raymond Loo

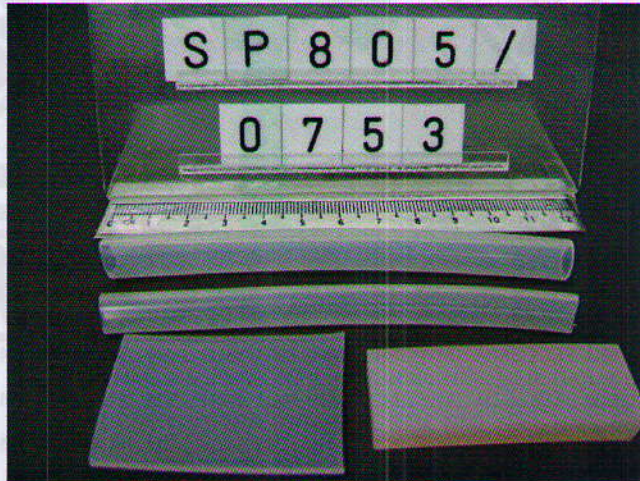
**Page No.** : 1 of 3  
**Certificate No.** : SP / 08-05 / 0552  
**Date of Issue** : 23 / 05 / 2008

**Customer Sample Description** : **SILICONE RUBBER EXTRUSION / SHEET**  
**BRAND : ALPHASIL**

**Date Of Sample Received** : 20 / 05 / 2008  
**Date Of Testing** : 20 / 05 / 2008 – 23 / 05 / 2008


### **Objective of Test**

Determination of Cadmium, Lead, Mercury, Hexavalent Chromium, PBBs and PBDEs in accordance with EU Directive 2002/95/EC (RoHS).



For NM LABORATORY SDN. BHD.

**JOB NO.:** SP805/0753  
**Test performed by :** Ms. Ashley Hoo  
Ms Tan Hooi Cheng

**Certified By:**   
Yeap Cheo Mooi, M. Sc, AMIC  
Operation Manager



**Certificate No.:** SP / 08-05 / 0552

**Page No.:** : 2 of 3

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**Customer :** YUREKA SDN.BHD.

## **Analysis parameter and Standard Method / Equipment / Technique description**

<u>Parameter</u>	<u>Standard Method / Equipment / Technique Description</u>
1. Cadmium	<b>BS EN 13346C : 2000</b> Characterization of sludges. Determination of trace elements and phosphorus. Aqua regia extraction method. ICP-AES (Inductive Coupled Plasma-Atomic Emission Spectrometry)
2. Lead	<b>BS EN 13346C : 2000</b> Characterization of sludges. Determination of trace elements and phosphorus. Aqua regia extraction method. ICP-AES (Inductive Coupled Plasma-Atomic Emission Spectrometry)
3. Mercury	<b>BS EN 13346C : 2000</b> Characterization of sludges. Determination of trace elements and phosphorus. Aqua regia extraction method. ICP-AES (Inductive Coupled Plasma-Atomic Emission Spectrometry)
4. Chromium Hexavalent	<b>USEPA Method 3060A</b> -Alkaline digestion for Hexavalent Chromium <b>USEPA Method 7196A</b> – Colorimetric by UV/Vis Spectroscopy
5. PBBs	<b>USEPA Method 3540C</b> - Soxhlet Extraction GC/MS-Gas Chromatography-Mass Spectrometry
6. PBDEs	<b>USEPA Method 3540C</b> - Soxhlet Extraction GC/MS-Gas chromatography-Mass Spectrometry

### **Measurement flowchart (Issue upon request)**

Refer to Appendix E– Measurement for Cadmium, Lead and Mercury

Appendix B - Measurement for Chromium Hexavalent

Appendix C - Measurement for PBB & PBDE



Certificate No.: SP / 08-05 / 0552

Page No. : 3 of 3

Date of Issue : 23 / 05 / 2008

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## Analysis Result

Type of Analysis/Parameters/ Properties measured	Analysis Results	Unit	Preconditioning Method / Technique	Measurement Method / Equipment	MDL ; mg/kg	RoHS Limit ; mg/kg
Cadmium (as Cd)	ND	mg/kg	BS EN 13346C : 2000	ICP-AES	0.5	100
Lead (as Pb)	4	mg/kg	BS EN 13346C : 2000	ICP-AES	1	1000
Mercury (as Hg)	ND	mg/kg	BS EN 13346C : 2000	ICP-AES	5	1000
Chromium Hexavalent (as Cr <sup>6+</sup> )	ND	mg/kg	USEPA Method 3060A	USEPA Method 7196A	1	1000

Chemical compound		Analysis Results	Preconditioning Method	Measurement Method	MDL ; mg/kg	RoHS Limit ; mg/kg
Polybrominated Biphenyls (PBBs)	Monobromobiphenyl	Not Detected	USEPA Method 3540C	GC/MS	5	-
	Dibromobiphenyl	Not Detected				
	Tribromobiphenyl	Not Detected				
	Tetrabromobiphenyl	Not Detected				
	Pentabromobiphenyl	Not Detected				
	Hexabromobiphenyl	Not Detected				
	Heptabromobiphenyl	Not Detected				
	Octabromobiphenyl	Not Detected				
	Nonabromobiphenyl	Not Detected				
	Decabromobiphenyl	Not Detected				
<b>Total PBBs</b>					-	1000

Chemical compound		Analysis Results	Preconditioning Method	Measurement Method	MDL ; mg/kg	RoHS Limit ; mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	Monobromodiphenyl ether	Not Detected	USEPA Method 3540C	GC/MS	5	-
	Dibromodiphenyl ether	Not Detected				
	Tribromodiphenyl ether	Not Detected				
	Tetrabromodiphenyl ether	Not Detected				
	Pentabromodiphenyl ether	Not Detected				
	Hexabromodiphenyl ether	Not Detected				
	Heptabromodiphenyl ether	Not Detected				
	Octabromodiphenyl ether	Not Detected				
	Nonabromodiphenyl ether	Not Detected				
	Decabromodiphenyl ether	Not Detected				
<b>Total PBDEs</b>					-	1000

**Remark** : The test portion was "Totally Dissolved" for Cadmium, Lead & Mercury test by using pre-conditioning method as mentioned above.

**Conclusion** : The sample analysis results were not exceed the maximum concentration values for Cd, Pb, Hg, Cr<sup>6+</sup>, PBB and PBDE as stipulated in amendment 2005/618/EC of EU Directive 2002/95/EC (RoHS).