![SGS logo]

Test Report No. F690101/LF-CTSAYAA12-25343

To: **KUMHO PETROCHEMICAL CO., LTD.**
118
3 ro Yeosusandan
Yeosu-si
Jeonlanamdo
Korea

The following merchandise was submitted and identified by the client as :

SGS File No.	: AYAA12-25343
Product Name	: SSBR
Item No./Part No.	: SOL-C6270SL
Received Date	: 2012. 07. 03
Test Period	: 2012. 07. 04 to 2012. 07. 10
Test Results	: For further details, please refer to following page(s)
Test Performed	: SGS Korea tested the sample(s) selected by applicant with following results.

SGS Korea Co. Ltd.

Jeff Jang (signature)

Timothy Jeon
Jinhee Kim
Cindy Park
Jerry Jung/ Testing Person

Jeff Jang / Chemical Lab Mgr

SGS

Sample No.	: AYAA12-25343.001
Sample Description	: SSBR
Item No./Part No.	: SOL-C6270SL
Materials	: Rubber

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321:2008, ICP	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321:2008, ICP	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321:2008, ICP	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	With reference to IEC 62321:2008, UV-VIS	1	N.D.

Polycyclic Aromatic Hydrocarbons

Test Items	Unit	Test Method	MDL	Results
Naphthalene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
1-Methyl naphthalene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
2-Methyl naphthalene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Acenaphthylene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Acenaphthene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Fluorene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Phenanthrene	mg/kg	ZEK 01.4-08, GC/MS	0.2	0.42
Anthracene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Fluoranthene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Pyrene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Benzo(a)anthracene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Chrysene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Benzo(b)fluoranthene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Benzo(j)fluoranthene + Benzo(k)fluoranthene	mg/kg	ZEK 01.4-08, GC/MS	0.4	N.D.
Benzo(e)pyrene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Benzo(a)pyrene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Indeno(1,2,3-c,d)pyrene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Dibenzo(a,h)anthracene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.
Benzo(g,h,i)perylene	mg/kg	ZEK 01.4-08, GC/MS	0.2	N.D.

NOTE: (1) N.D. = Not detected.(<MDL)
           (2) mg/kg = ppm
           (3) MDL = Method Detection Limit
           (4) - = No regulation
           (5) Negative = Undetectable / Positive = Detectable
           (6) ** = Qualitative analysis (No Unit)
           (7) * = Boiling-water-extraction:
                Negative = Absence of CrVI coating
                Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction
                solution is equal or greater than 0.02 mg/kg with 50 cm2 sample surface area.
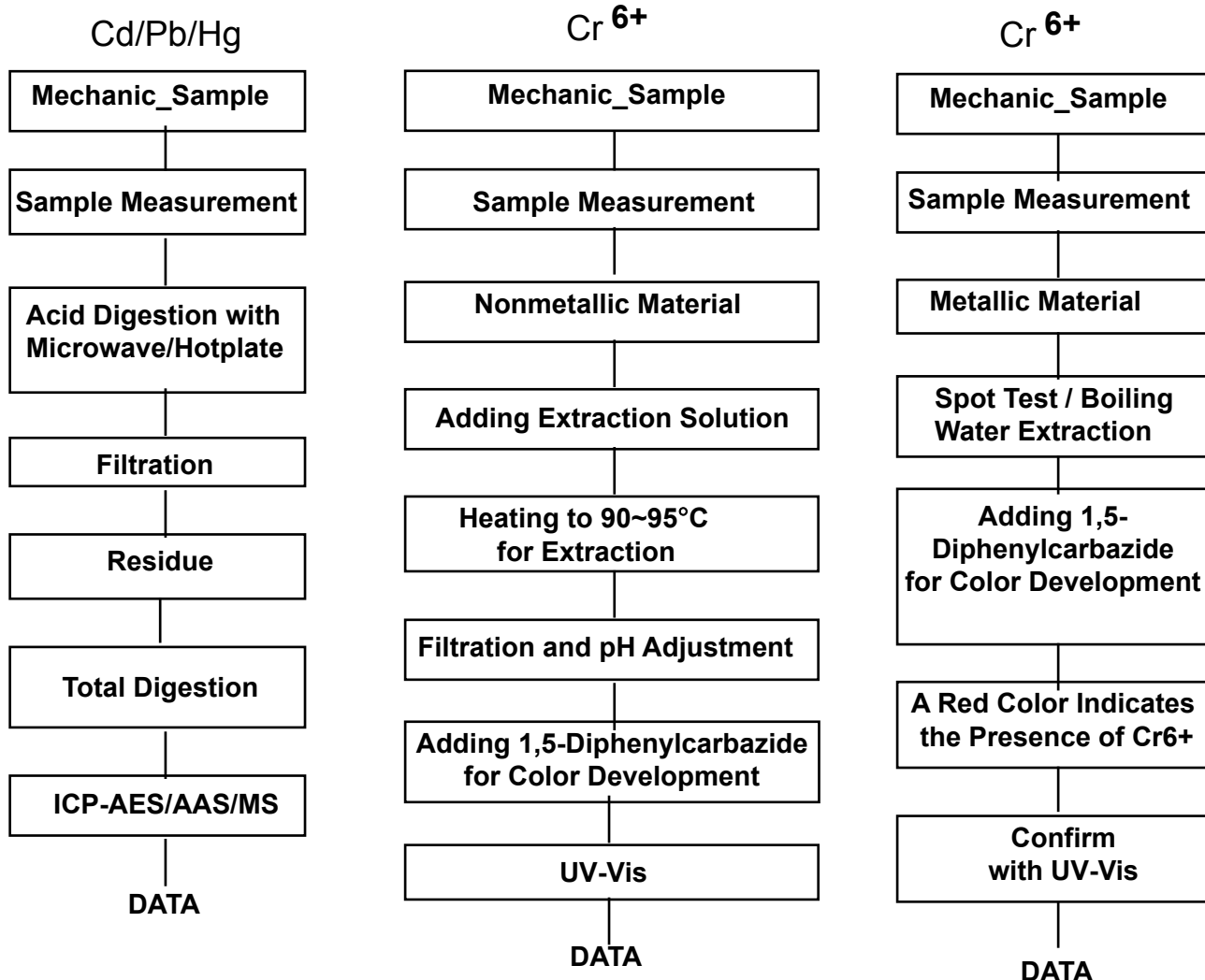
Picture of Sample as Received:

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　　　　　　solution is equal or greater than 0.02 mg/kg with 50 cm2 sample surface area.

Testing Flow Chart for RoHS:Cd/Pb/Hg/Cr^{6+} Testing

Cd/Pb/Hg

- Mechanic_Sample
- Sample Measurement
- Acid Digestion with Microwave/Hotplate
- Filtration
- Residue
- Total Digestion
- ICP-AES/AAS/MS
- **DATA**

Cr $^{6+}$

- Mechanic_Sample
- Sample Measurement
- Nonmetallic Material
- Adding Extraction Solution
- Heating to 90~95°C for Extraction
- Filtration and pH Adjustment
- Adding 1,5-Diphenylcarbazide for Color Development
- UV-Vis
- **DATA**

Cr $^{6+}$

- Mechanic_Sample
- Sample Measurement
- Metallic Material
- Spot Test / Boiling Water Extraction
- Adding 1,5-Diphenylcarbazide for Color Development
- A Red Color Indicates the Presence of Cr6+
- Confirm with UV-Vis
- **DATA**

The samples were dissolved totally by pre-conditioning method according to above flow chart for Cd,Pb,Hg.
Section Chief ： Gilsae Yi

*** End ***

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solution is equal or greater than 0.02 mg/kg with 50 cm2 sample surface area.

SGS Korea Co.,Ltd.   322, The O valley, 555-9, Hogye-dong, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 431-080
t +82 (0)31 4608 000 f +82 (0)31 4608 059 http://www.sgslab.co.kr ,www.kr.sgs.com/greenlab