



Test Report No. 2184829 Date: 6-Mar-2012 Page 1 of 10

Client: Thermaflex Insulation Asia Co.,Ltd.

10 Moo 12, Nong-prue,

Banglamung, Chonburi 20260 Thailand

The following sample(s) was/were submitted and identified by/on behalf of the client as:

Sample Description : ThermaSmart Pro

Sample No. 2248777

Sample Condition Sample is contained in plastic bag.

Quantity Submitted : 10 pcs

Sample Receiving Date : 2-Mar-2012

Testing Period : 02-Mar-2012 to 06-Mar-2012

Test Requested : In accordance with the RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC

Test Method : (1) With reference to EPA Method 3050B for Lead Content. Analysis was performed

by ICP-OES.

(2) With reference to BS EN1122: 2001, Method B for Cadmium Content. Analysis

was performed by ICP-OES.

(3) With reference to EPA Method 3052 for Mercury Content. Analysis was

performed by ICP-OES.

(4) With reference to EPA Method 3060A & 7196A for Hexavalent Chromium.

Analysis was performed by UV/Vis Spectrometry.

(5) With reference to USEPA 3540C for PBB/PBDE content. Analysis was performed

by GC/MS.

Test Results : Please refer to next page.

CONCLUSION

Based on the performed tests on submitted samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of SGS (Thailand) Limited

Pornpana Lirathpong

Hardlines Testing Manager

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Test results by chemical method (Unit: mg/kg)

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Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit		
Lead (Pb)	(1)	n.d.	2	1000		
Cadmium (Cd)	(2)	n.d.	2	100		
Mercury (Hg)	(3)	n.d.	2	1000		
Hexavalent Chromium (CrVI)	(4)	n.d.	2	1000		

Test Part Description Result (1) grey foam

Note:

(1) mg/kg = ppm

(2) n.d. = Not Detected

(3) MDL = Method Detection Limit

(4) Test done on client submited sample

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Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit
sum of PBBs	(5)	n.d.	-	1000
Monobromobiphenyl		n.d.	5	-
Dibromobiphenyl		n.d.	5	-
Tribromobiphenyl		n.d.	5	-
Tetrabromobiphenyl		n.d.	5	-
Pentabromobiphenyl		n.d.	5	-
Hexabromobiphenyl		n.d.	5	-
Heptabromobiphenyl		n.d.	5	-
Octabromobiphenyl		n.d.	5	-
Nonabromobiphenyl		n.d.	5	-
Decabromobiphenyl		n.d.	5	-

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Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit
Sum of PBDEs	(5)	n.d.	-	1000
Monobromodiphenyl ether		n.d.	5	-
Dibromodiphenyl ether		n.d.	5	-
Tribromodiphenyl ether		n.d.	5	-
Tetrabromodiphenyl ether		n.d.	5	-
Pentabromodiphenyl ether		n.d.	5	-
Hexabromodiphenyl ether		n.d.	5	-
Heptabromodiphenyl ether		n.d.	5	-
Octabromodiphenyl ether		n.d.	5	-
Nonabromodiphenyl ether		n.d.	5	-
Decabromodiphenyl ether		n.d.	5	-

Test Part Description Result (1) grey foam

Note

(1) mg/kg = ppm; 0.1 wt% = 1000 ppm

(2) n.d. = Not Detected

(3) MDL = Method Detection Limit

(4) "-" = Not regulated

(5) Test done on client submited sample

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Test Report No. 2184829 Date: 6-Mar-2012 Flow chart of digestion (EPA 3050B for Pb) +----+ | Cutting/Preparation | +----+ | Sample measurement | - 1 | digestion with HNO3 | +----+ +----+ | add H2O2 + Hcl | +----+ +----+ | digestion | +----+ +----+ | Filtration | No residue - 1 |Residue +----+ | Ashing with H2SO4 | +----+ - 1 +----+ | Add HNO3 | +----+ No residue

The samples were dissolved totally by pre-conditioning method according to above flow chart.

+----+

Operator : Siam Polarwut

Section Chief: Laddawan Uranpitr

1 +----+

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| ICP-OES | ---- | DATA |





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Flow chart of digestion (EN 1122 Method B for Cd)

```
| Cutting/Preparation |
+----+
+----+
| Sample measurement |
  - 1
| add H2SO4 |
+----+
  +----+
| add H2O2 |
+----+
| Total digestion |
+----+
+----+
| ICP-AES |
  - 1
| DATA |
```

The samples were dissolved totally by pre-conditioning method according to above flow chart.

Operator : Siam Polarwut

Section Chief : Laddawan Uranpitr

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Test Report No. Date: 6-Mar-2012 2184829 Flow chart of digestion (EPA 3052 for Hg) +----+ | Cutting/Preparation | +----+ | Sample measurement | | MiCrowave digestion with HNO3 + HF| +----+ +----+ | Filtration | +----+ No residue +-----|Residue | Ashing with H2SO4 | 1 +----+ | Add HNO3 | - 1 No residue -----+ - 1 +----+ | ICP-OES |

The samples were dissolved totally by pre-conditioning method according to above flow chart.

Operator : Siam Polarwut

Section Chief: Laddawan Uranpitr

+----+ | DATA | +----+

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Flow chart of digestion (EPA 3060A,7196A for Cr(VI)) | Cutting/Preparation | +----+ +----+ | Sample measurement | | Add digestion solution(NaOH+Na2CO3) | +----+ | Add MgCl2 and phosphate buffer | +----+ +----+ | add HNO3 | | Colorimetrically | - 1 | UV-Spectrophotometer | +----+ +----+ | DATA |

+----+
Operator : Siam Polarwut

Section Chief : Laddawan Uranpitr

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Flow chart of PBBs/PBDEs

```
+----+
| Sample |
  1
+----+
| Sample pretreatment |
| Sample extraction/Soxhlet method |
+----+
| Concentrate/Dilute Extracted solution |
+----+
+----+
| Filter |
  -
| Analysis by GC/MS |
  - 1
+----+
| DATA |
+----+
```

Operator : Rattaya Khantama

Section Chief: Waranchote Pananuraksa

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SAMPLE/ATTACHMENT PICTURE



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