

No. LPCI/01156/11

CTS Ref. CTS/11/0196/CSC

Date: 21/01/2011 Page: 1 of 5

CSC STEEL SDN BHD (228899-P) 180, KAWASAN INDUSTRI AYER KEROH, AYER KEROH, 75450 MELAKA, MALAYSIA

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

Sample Description : Classic Black PPGI

BMT 0.6mm CGCC Z06

Sample Receiving Date : 14/01/2011

Testing Period : 14/01/2011 to 21/01/2011

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its

amendment directives.

Test Method : Please refer to next page(s).

Test Results : Please refer to next page(s).

Analysts : Ng Mei Kheng & Loi Woan Yee

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Test results:

**Test Part Description**:

Sample Description : Classic Black PPGI BMT 0.6mm CGCC Z06

### RoHS Directive 2002/95/EC

Test Item(s):	Unit	Test Method	Results	MDL
Cadmium(Cd)	mg/kg	With reference to EPA Method 3050B, and performed by ICP-OES	N.D.	2
Lead (Pb)	mg/kg	With reference to EPA Method 3050B, and performed by ICP-OES	N.D.	2
Mercury (Hg)	mg/kg	With reference to EPA Method 3052, and performed by ICP-OES	N.D.	2
Hexavalent Chromium (CrVI)	mg/kg	With reference to EPA Method 3060A & 7196A, and performed by UV-VIS Spectrophotometry	N.D.	2
Sum of PBBs	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	-
Monobromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Dibromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tribromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tetrabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Hexabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Pentabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Heptabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Octabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Nonabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Decabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5

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Test Item(s):	Unit	Test Method	Results	<u>MDL</u>
Sum of PBDEs	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	-
Monobromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Dibromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tribromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tetrabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Pentabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Hexabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Heptabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Octabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Nonabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Decabromodiphenyl ether ##	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5

Note: (a) mg/kg = ppm; (0.1wt% = 1000ppm)

(b) N.D. = Not Detected

(c) MDL = Method Detection Limit

(d) ## = The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE is included in the sum of PBDE after 01.07.2008

(e) - = Not regulated

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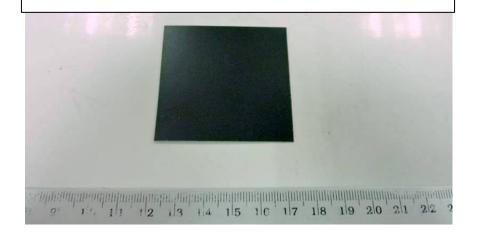
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Test Part Description:

Sample Description

Classic Black PPGI BMT 0.6mm CGCC Z06

#### CSC STEEL SDN BHD LPCI/01156/11



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### 1. <u>DETERMINATION OF HEXAVALENT CHROMIUM BY</u> METHOD US EPA 3060A/7196A

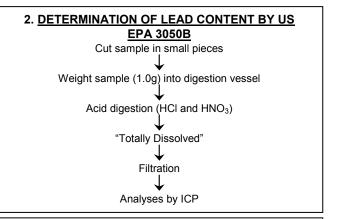
Sample Preparation

Add colour-developing reagent

Acidify with H<sub>2</sub>SO<sub>4</sub>

Let stand for 5-10 min

Analyses by UV- Spectrophotometer (540 nm)



# 3. MICROWAVE ASSISTED ACID DIGESTION OF SILICEOUS AND ORGANICALLY BASED METRICES

(US EPA 3052)
Cut sample in small pieces

↓
Weight sample (0.2-0.5g) into digestion vessel
↓
Acid digestion (HF and HNO<sub>3</sub>) – Microwave
↓
"Totally Dissolved"
↓
Filtration
↓
Analyses by ICP

## 4. <u>DETERMINATION OF CADMIUM CONTENT BY US</u> <u>EPA 3050B</u>

Cut sample in small pieces

Weight sample (1.0g) into digestion vessel

Acid digestion (HCl and HNO<sub>3</sub>)

"Totally Dissolved"

Filtration

Analyses by ICP

### 5. DETERMINATION OF PBB/PBDE WITH GC-MS

Cut sample in small pieces

Weight sample (0.5-4g) into extraction thimble

Ultrasonic / Soxhlet Extraction with Toluene

Filter through 0.45 um membrane filter

Analyses by GC-MS (with appropriate dilution)

\*\*\*\* End of Report \*\*\*\*

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