



XRF SCREENING AND CHEMICAL CONFIRMATION REPORT

NUMBER : THJ0073005

APPLICANT: CACTUS TECHNOLOGIES LTD
SUITE 2002 20/F
BILLION TRADE CENTER 31 HUNG TO ROAD
KWUN TONG KOWLOON HONG KONG

DATE : APR 01, 2008

SAMPLE DESCRIPTION:

ONE (1) GROUP OF SUBMITTED SAMPLES SAID TO BE :

- SAMPLE DESCRIPTION : CACTUS CF CARD
- (1) COLORFUL PLASTIC STICKER
 - (2) SILVERY METAL COVER
 - (3) BLACK PLASTIC FRAME
 - (4) TRANSPARENT PLASTIC INSULATION FILM
 - (5) CONNECTOR - BLACK PLASTIC SOCKET
 - (6) CONNECTOR - SILVERY METAL PIN
 - (7) PCBA (CONNECTOR WAS EXCLUDED)

STYLE / ITEM NO. : KC XXXYZ(I) -303 X : ANY DIGIT CAPACITY
Y : M, G, UNIT
Z : R, F ACCESS TYPE

SERIES NO. : -303
DATE SAMPLE RECEIVED : MAR 19, 2008
DATE TEST STARTED : MAR 20, 2008

TEST CONDUCTED:

AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE REFER TO ATTACHED PAGES.

CONCLUSION:

<u>TESTED SAMPLES</u>	<u>STANDARD</u>	<u>RESULT</u>
SCREENING COMPONENTS OF SUBMITTED SAMPLES	SCREENING BY XRF SPECTROSCOPY AND CHEMICAL CONFIRMATION TEST FOR ROHS DIRECTIVE (2002/95/EC)	PASS

AUTHORIZED BY:
ON BEHALF OF INTERTEK TESTING SERVICES
TAIWAN LIMITED



K. Y. LIANG
DIRECTOR

THIS REPORT SHALL NOT BE REPRODUCED
EXCEPT IN FULL, WITHOUT THE WRITTEN
APPROVAL OF THE LABORATORY.



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TEST CONDUCTED

SCREENING BY XRF SPECTROSCOPY AND CHEMICAL CONFIRMATION TEST

DETERMINATION OF LEVELS OF REGULATED SUBSTANCES IN ELECTROTECHNICAL PRODUCTS, ELEMENTS OF CADMIUM (Cd), LEAD (Pb), MERCURY (Hg), CHROMIUM (Cr) AND BROMINE (Br) CONTENT WERE MEASURED BY XRF SPECTROSCOPY AND CHEMICAL CONFIRMATION TEST FOR ROHS RESTRICTED SUBSTANCES.

(I) TEST RESULT SUMMARY :

SCREENED COMPONENTS	XRF RESULTS (in ppm)	CHEMICAL CONFIRMATION RESULTS (in ppm)
(1)	Cd : ND Pb : ND Hg : ND Cr : ND Br : ND	NOT TESTED
(2)	Cd : ND Pb : ND Hg : ND Cr : INCONCLUSIVE (>700) Br : NOT APPLICABLE	Cr ⁶⁺ : ND
(3)	Cd : ND Pb : ND Hg : ND Cr : ND Br : INCONCLUSIVE (>300)	PBBs : ND PBDEs : ND
(4)	Cd : ND Pb : ND Hg : ND Cr : ND Br : ND	NOT TESTED



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(I) TEST RESULT SUMMARY :

SCREENED COMPONENTS	XRF RESULTS (in ppm)	CHEMICAL CONFIRMATION RESULTS (in ppm)
(5)	Cd : ND Pb : ND Hg : ND Cr : ND Br : ND	NOT TESTED
(6)	Cd : ND Pb : ND Hg : ND Cr : ND Br : NOT APPLICABLE	NOT TESTED
(7) (#)	NOT TESTED	Cd:ND Pb:15 Hg:ND Cr ⁶⁺ : ND PBBs:ND PBDEs:ND

REMARKS: ppm = PARTS PER MILLION = mg/kg
 ND = NOT DETECTED
 > = MORE THAN
 # = SAMPLES WERE GROUND AND RANDOMLY SELECTED FOR CHEMICAL TEST.



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(II) XRF SCREENING LIMITS IN mg/kg FOR REGULATED ELEMENTS IN VARIOUS MATRICES.

ELEMENT	POLYMER MATERIALS	METALLIC MATERIALS	COMPOSITE MATERIALS
Cd	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 150 \leq F$
Pb	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Hg	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Cr	$P \leq 700 < X$	$P \leq 700 < X$	$P \leq 500 < X$
Br	$P \leq 300 < X$	NOT APPLICABLE	$P \leq 250 < X$

P = PASS
X = XRF SCREENING RESULT
F = FAIL

(III) ESTIMATED DETECTION LIMITS IN mg/kg FOR REGULATED ELEMENTS IN VARIOUS MATRICES.

ELEMENT	POLYMER MATERIALS	METALLIC MATERIALS	COMPOSITE MATERIALS
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	NOT APPLICABLE	200

DISCLAIMERS :

THIS XRF SCREENING REPORT IS FOR REFERENCE PURPOSES ONLY. THE APPLICANT SHALL MAKE ITS/HIS/HER OWN JUDGEMENT AS TO WHETHER THE INFORMATION PROVIDED IN THIS XRF SCREENING REPORT IS SUFFICIENT FOR ITS/HIS/HER PURPOSES.

THE RESULTS SHOWN IN THIS XRF SCREENING REPORT WILL DIFFER BASED ON VARIOUS FACTORS, INCLUDING WITHOUT LIMITATION, THE SAMPLE SIZE, THICKNESS, AREA, SURFACE FLATNESS, EQUIPMENT PARAMETERS AND MATRIX EFFECT (E.G. PLASTIC, RUBBER, METAL, GLASS, CERAMIC ETC.). FURTHER WET CHEMICAL PRE-TREATMENT WITH RELEVANT CHEMICAL EQUIPMENT ANALYSIS IS REQUIRED TO OBTAIN QUANTITATIVE DATA.



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(IV) CHEMICAL CONFIRMATION TEST METHODS :

<u>TESTING ITEM</u>	<u>TESTING METHOD</u>	<u>REPORTING LIMIT</u>
CADMIUM (Cd) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
LEAD (Pb) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
MERCURY (Hg) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
CHROMIUM (VI) (Cr ⁶⁺) CONTENT	AS PER APPLICANT'S REQUEST WITH REFERENCE TO USEPA 3060A & 7196A, BY ALKALINE DIGESTION AND DETERMINED BY UV-VIS SPECTROPHOTOMETER	1 ppm
POLYBROMINATED BIPHENYLS (PBBs)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC-MSD OR HPLC-DAD	5 ppm
POLYBROMINATED DIPHENYL EHTERS (PBDEs)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY GC-MSD OR HPLC-DAD	5 ppm

REMARK : REPORTING LIMIT = QUANTITATION LIMIT OF ANALYTE IN SAMPLE

(V) RoHS REQUIREMENT :

<u>RESTRICTED SUBSTANCES</u>	<u>LIMITS</u>
CADMIUM (Cd)	100 ppm (0.01%)
LEAD (Pb)	1000 ppm (0.1%)
MERCURY (Hg)	1000 ppm (0.1%)
CHROMIUM (VI) (Cr ⁶⁺)	1000 ppm (0.1%)
POLYBROMINATED BIPHENYLS (PBBs)	1000 ppm (0.1%)
POLYBROMINATED DIPHENYL EHTERS (PBDEs)	1000 ppm (0.1%)

REMARK : THE ABOVE RoHS LIMITS WERE QUOTED FROM 2002/95/EC AND AMENDMENT 2005/618/EC FOR HOMOGENEOUS MATERIAL.

END OF REPORT

TEST CONDUCTED

PHOTO

