



TEST REPORT

(시험성적서)

신청기관 (인) : 고려비철금속(주)
Applicant : KOREA NON-FERROUS METALS CO.

주소 (한글) : 인천 남동구 고잔동 713-21(남동공단 147블럭 13롯데)
Address (Engl.) : 13Lot 147Block, Namdong Industrial Estate, 713-21, Gojan-dong, Namdong-gu, Incheon, Korea

발행면수 (Page) : 1 of 4

발행일자 (Date) : 2011. 03. 10.

시험성적서 번호 (Report No.) : RT11R-S0901-004-K

시료 명세 (Sample Description) : 시료에 대한 상세한 정보는 아래와 같음
(The following submitted sample(s) said to be)

제품명/형식 (Name/Type of Product) : Zinc
(Zinc)

재질 (Name of Material) : Zinc
(Zinc)

시료고유번호 (Sample ID No.) : RT11R-S0901-004
(RT11R-S0901-004)

품번 (Item No.) : No.4
(No.4)

제품 생산자/공급자 (Manufacturer/Vender) : 고려비철금속(주)
(KOREA NON-FERROUS METALS CO.)

제출처 (Name of Buyer) : I.T.C. Korea
(I.T.C. Korea)

시료접수일자 (Sample received) : 2011. 03. 07.
(Mar. 07, 2011)

시험일자 (Testing Date) : 2011. 03. 07. ~ 2011. 03. 10.
(Mar. 07, 2011 ~ Mar. 10, 2011)

시험환경 (Testing Environment) : 온도 (24 ± 2) °C, 습도 (60 ± 5) % R.H.
(Temperature : (24 ± 2) °C, Humidity : (60 ± 5) % R.H.)

시험유형 (Test type) : RoHS 화학분석
(RoHS wet chemical analysis)

시험방법 (Test Method) : 이 시험성적서의 다음 페이지 첨부
(Please see the following page)

시험결과 (Test Result) : 이 시험성적서의 다음 페이지 첨부
(Please see the following page)

- 비고 (Notes) :
- 이 시험성적서는 제시된 시료 및 시료명으로 시험한 결과로서 유사 대상시료에 적용할 수 없음.
(The test results presented in this report relate only to the object tested.)
 - 이 시험성적서는 승인없이 복사 사용을 금함.
(This report shall not be reproduced except in full without the written approval of the testing laboratory.)
 - 이 시험성적서의 품번은 고객의 요청 및 보증서에 의거하여 명기함.
(The item no. is assigned by client and indicated according to their requirement and guarantee letter.)

승인자 (Approved by)

권한자 (Authorized by)

장준용/기술책임자 (Jade Jang / Lab. Technical Manager)

박병욱/소장 (Bo Park / Lab. General Manager)

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Intertek Testing Services Korea Ltd.

Seoul Office: Tel : 02-6090-9500 Fax : 02-3409-0026 Daegu Office : Tel : 053-600-8647 Fax : 053-600-8645 Web Site : www.Intertek.co.kr

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시료명 (Sample Description) : Zinc
(Zinc)

시험항목 (Test Item)	단위 (Unit)	분석방법 (Test Method)	검출한계 (MDL)	시험결과 (Result)
카드뮴 (Cadmium, Cd)	mg/kg	With reference to IEC 62321 Edition 1.0 : 2008, by acid digestion and determined by ICP-OES	0.5	N.D.
납 (Lead, Pb)	mg/kg		5	11
수은 (Mercury, Hg)	mg/kg		2	N.D.
6가 크롬 (Hexavalent Chromium, Cr ⁶⁺) (For metal)	-	With reference to IEC 62321 Edition 1.0 : 2008, by Spot test	(Threshold of 1 mg/kg)	Negative
6가 크롬 (Hexavalent Chromium, Cr ⁶⁺) (For metal)	-	With reference to IEC 62321 Edition 1.0 : 2008, by boiling water extraction and determined by UV-VIS Spectrophotometer	(Threshold of 0.02 mg/kg with 50 cm ²)	Negative

Tested by : Nikkie Lee, Leo Kim

Notes : mg/kg = ppm = parts per million (함량 표시 : 백만분의 일)

mg/kg with 50 cm² = milligram per kilogram with 50 square centimeter

< = Less than (결과 값 이하)

N.D. = Not detected (< MDL, 미검출 - 측정한계치 이하)

MDL = Method detection limit (측정한계치)

Positive = A positive test result indicated the presence of Cr(VI) at the time of testing, equal to or greater than threshold of 1 mg/kg for spot test procedures or 0.02 mg/kg for boiling water extraction procedures with a sample surface area of 50 cm² used. However, it shall not be interpreted as the Cr(VI) concentration in the coating layer of the sample and should not be used as a method detection limit for this qualitative test.

Negative = A negative test result indicates above positive observation was not found at the time of testing. When the spot test showed a negative result, the boiling water extraction procedure shall be used to verify the result.

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시료고유번호 (Sample ID No.) : RT11R-S0901-004

시료명 (Sample Description) : Zinc
(Zinc)

* 시료 접수 시 시료 상태 :
(View of sample as received)



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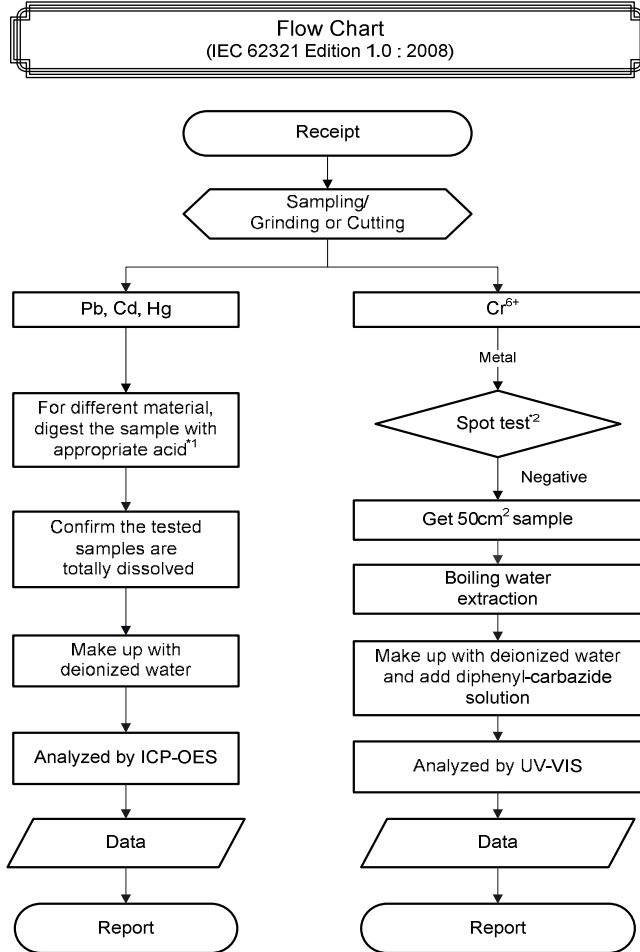
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(Zinc)



Remarks :

*1 : List of appropriate acid :

Material	Acid added for digestion
Polymers	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₃ BO ₃
Metals	HNO ₃ , HCl, HF
Electronics	HNO ₃ , HCl, H ₂ O ₂ , HBF ₄

*2 : If the result of spot test is positive, Chromium (VI) would be determined as detected.
No further analysis is required.

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

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