

제222호 (1/4)

국제공인시험기관인정서

기 관 명 : S&T 모티브(주)

대 표 자 : 김택권

법 인 등 록 번 호 : 180111-0396069

사업자등록번호 : 621-81-47887

법 인 주 소 : 부산시 기장군 철마면 여락송정로 363

사 업 장 소 재 지 : 부산시 기장군 철마면 여락송정로 363

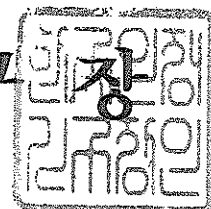
유효 기 간 : 2012년 7월 11일 ~ 2016년 7월 10일

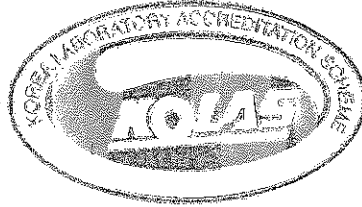
인정분야 및 범위 : 별첨 참조

상기 시험기관을 KS Q ISO/IEC 17025:2006 인정요건 및 국가표준기본법 제23조의 규정에 의거하여 국제공인시험기관으로 인정합니다. 또한 ISO-ILAC-IAF 공동성명(2009.1.8)에 언급된 바와 같이 인정된 분야 및 범위에 대한 기술적 능력과 시험기관 품질경영시스템이 적절함을 인정합니다.

2012년 7월 11일

한 국 인 정 기 구





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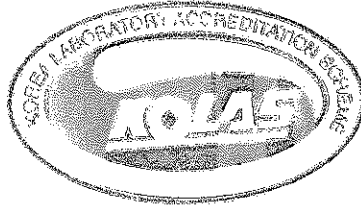
1. 역학시험

1.001 금속 및 관련제품

규격번호	규격명	시험범위 및 검출한계
KS B 0802 : 2003	금속 재료 인장 시험 방법	250 kN Max. 100 % Max.
KS B 0805 : 2000	브리넬 경도 시험 방법	(1.839 ~ 29.42) kN 650 HBW Max.
KS B 0806 : 2000	로크웰 경도 시험 방법	(29.42 ~ 1 471) N (0 ~ 100) HR
KS B 0811 : 2003	금속 재료의 비커스 경도 시험 방법	(0.098 ~ 9.806) N

1.013 물리적 시험

규격번호	규격명	시험범위 및 검출한계
KS D 0246 : 2001	도금 두께 시험 방법	
	5. 현미경 단면 시험 방법	×1 000 Max.
KS D 9502 : 2009	염수 분무 시험 방법(중성, 아세트산 및 캐스 분무 시험)	
	중성 염수 분무 시험	(10 ~ 70) °C
ASTM B 117 : 2011	Standard Practice for Operating Salt Spray (Fog) Apparatus	(10 ~ 70) °C
GMW 3172 : 2008	General Specification Electrical/Electronic Components-Environmental/Durability	
	8.4.2 Low Temperature Wakeup	-50 °C Min.
	9.3.1 Vibration With Thermal Cycling	1 000 m/s ² Max. 2 400 Hz
	9.4.1 High Temperature Degradation	220 °C Max.
	9.4.2 Temperature Shock Air-to-air(TS)	(-40 ~ 150) °C
	9.4.5 Humid Heat Cyclic(HHC)	(-40 ~ 150) °C (30 ~ 98) %
	9.4.6 Humid Heat Cyclic(HHCo)	(-40 ~ 150) °C (30 ~ 98) %



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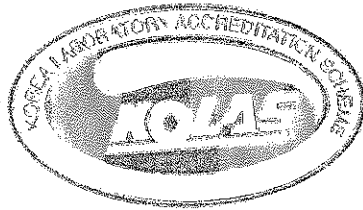
1.013 물리적 시험

규격번호	규격명	시험범위 및 검출한계
MIL-STD-810G : 2008	Environmental Engineering Considerations and Laboratory Tests	
	501.5 High Temperature	220 °C Max.
	502.5 Low Temperature	-50 °C Min.
	503.5 Temperature Shock	(-40 ~ 150) °C
	507.5 Humidity	(-40 ~ 150) °C (30 ~ 98) %
	514.6 Vibration	1 000 m/s ² Max. 2 400 Hz

2. 화학시험

2.001 철강

규격번호	규격명	시험범위 및 검출한계
KS D 1652 : 2007	철 및 강의 스파크 방전 원자 방출 분광 분석 방법	
	탄소	(0.001 ~ 5.5) %
	규소	(0.002 ~ 6.0) %
	망가니즈	(0.003 ~ 30) %
	인	(0.000 5 ~ 1.0) %
	황	(0.000 2 ~ 0.5) %
	니켈	(0.002 ~ 40) %
	크로뮴	(0.002 ~ 40) %
	몰리브데넘	(0.001 ~ 10) %
	구리	(0.001 ~ 6.0) %
	텅스텐	(0.01 ~ 25) %
	바나듐	(0.001 ~ 6.0) %
	코발트	(0.001 ~ 20) %
	타이타늄	(0.000 5 ~ 3.0) %
	알루미늄	(0.001 ~ 5.0) %



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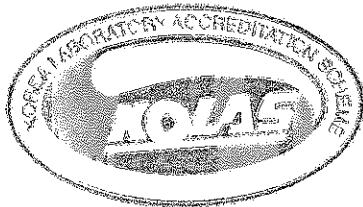
2.001 철강

규격번호	규격명	시험범위 및 검출한계
KS D 1652 : 2007	철 및 강의 스파크 방전 원자 방출 분광 분석 방법	
	주석	(0.000 6 ~ 0.3) %
	납	(0.001 ~ 0.5) %
	나이오븀	(0.001 ~ 2.0) %
KS D 1673 : 2007	강의 유도결합 플라즈마 방출 분광 분석 방법	
	망가니즈	(0.01 ~ 2.00) %
	니켈	(0.01 ~ 4.00) %
	크로뮴	(0.01 ~ 3.00) %
	몰리브데넘	(0.01 ~ 1.20) %
	구리	(0.01 ~ 0.50) %
	바나듐	(0.002 ~ 0.50) %
	코발트	(0.003 ~ 0.20) %
	타이타늄	(0.001 ~ 0.30) %
	알루미늄	(0.004 ~ 0.10) %

2.008 기타재료 및 제품

규격번호	규격명	시험범위 및 검출한계
KS D 1662 : 2005	자동차 부품에 표면 처리된 6가 크로뮴 분석 방법	0.1 µg/cm ² Min.
US EPA 3052 : 1996	Microwave Assisted Acid Digestion of Siliceous and Organically Based Matrices	
	(Cadmium, Lead, Mercury)	
US EPA 6010C : 2007	Inductively Coupled Plasma-Atomic Emission Spectrometry	
	Cadmium	2.3 µg/L Min.
	Lead	2.8 µg/L Min.
	Mercury	17 µg/L Min.

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CERTIFICATE OF ACCREDITATION

Name of Laboratory : S&T Motiv Co. Ltd.

Representative : Taekwon, Kim

Address of Headquarters : 363 Yeoraksongjeong-ro, Cheolma-myeon, Gijang-gun,
Busan, Korea

Address of Laboratory : 363 Yeoraksongjeong-ro, Cheolma-myeon, Gijang-gun,
Busan, Korea

Duration : July 11, 2012 ~ July 10, 2016

Scope of Accreditation

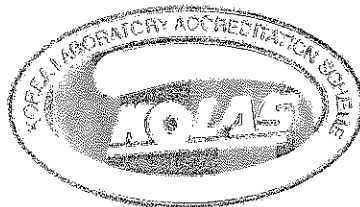
(Scope of Accreditation is described in the accompanying Annex)

This testing laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025 : 2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated 8 January 2009).

July 11, 2012

Administrator,

Korea Laboratory Accreditation Scheme(KOLAS)



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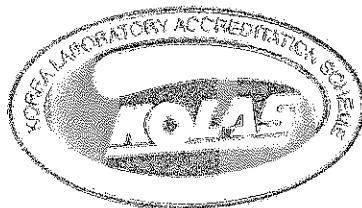
1. Mechanical Test

1.001 Metals and Related Products

Test method	Standard designation	Test range or Limits of detection
KS B 0802 : 2003	Method of tensile test for metallic materials	250 kN Max. 100 % Max.
KS B 0805 : 2000	Metallic materials - Test method of brinell hardness	(1.839 ~ 29.42) kN 650 HBW Max.
KS B 0806 : 2000	Metallic materials - Test method of rockwell hardness	(29.42 ~ 1 471) N (0 ~ 100) HR
KS B 0811 : 2003	Metallic materials - Vickers hardness test - Part 1: Test method	(0.098 ~ 9.806) N

1.013 Physical Test

Test method	Standard designation	Test range or Limits of detection
KS D 0246 : 2001	Methods of thickness test for metallic coatings	
	5. Test Method for Coating Thickness by Microscopical Examination of a Cross Section	×1 000 Max.
KS D 9502 : 2009	Neutral, acetic acid and copper-accelerated acetic acid salt spray	
	Neutral salt spray	(10 ~ 70) °C
ASTM B 117 : 2011	Standard Practice for Operating Salt Spray (Fog) Apparatus	(10 ~ 70) °C
GMW 3172 : 2008	General Specification Electrical/Electronic Components-Environmental/Durability	
	8.4.2 Low Temperature Wakeup	-50 °C Min.
	9.3.1 Vibration With Thermal Cycling	1 000 m/s ² Max. 2 400 Hz
	9.4.1 High Temperature Degradation	220 °C Max.
	9.4.2 Temperature Shock Air-to-air(TS)	(-40 ~ 150) °C
	9.4.5 Humid Heat Cyclic(HHC)	(-40 ~ 150) °C (30 ~ 98) %
	9.4.6 Humid Heat Cyclic(HHCo)	(-40 ~ 150) °C (30 ~ 98) %



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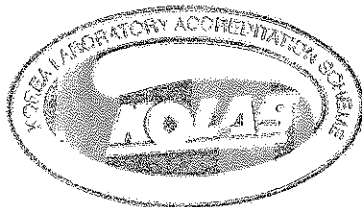
1.013 Physical Test

Test method	Standard designation	Test range or Limits of detection
MIL-STD-810G : 2008	Environmental Engineering Considerations and Laboratory Tests	
	501.5 High Temperature	220 °C Max.
	502.5 Low Temperature	-50 °C Min.
	503.5 Temperature Shock	(-40 ~ 150) °C
	507.5 Humidity	(-40 ~ 150) °C (30 ~ 98) %
	514.6 Vibration	1 000 m/s ² Max. 2 400 Hz

2. Chemical Test

2.001 Iron and Steel

Test method	Standard designation	Test range or Limits of detection
KS D 1652 : 2007	Iron and steel-Method for spark discharge atomic emission spectrometric analysis	
	Carbon	(0.001 ~ 5.5) %
	Silicon	(0.002 ~ 6.0) %
	Manganese	(0.003 ~ 30) %
	Phosphorus	(0.000 5 ~ 1.0) %
	Sulfur	(0.000 2 ~ 0.5) %
	Nickel	(0.002 ~ 40) %
	Chromium	(0.002 ~ 40) %
	Molybdenum	(0.001 ~ 10) %
	Copper	(0.001 ~ 6.0) %
	Tungsten	(0.01 ~ 25) %
	Vanadium	(0.001 ~ 6.0) %
	Cobalt	(0.001 ~ 20) %
	Titanium	(0.000 5 ~ 3.0) %
	Aluminum	(0.001 ~ 5.0) %



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2.001 Iron and Steel

Test method	Standard designation	Test range or Limits of detection
KS D 1652 : 2007	Iron and steel-Method for spark discharge atomic emission spectrometric analysis	
	Tin	(0.000 6 ~ 0.3) %
	Lead	(0.001 ~ 0.5) %
	Niobium	(0.001 ~ 2.0) %
KS D 1673 : 2007	Methods for inductively coupled plasma emission spectrochemical analysis of steel	
	Manganese	(0.01 ~ 2.00) %
	Nickel	(0.01 ~ 4.00) %
	Chromium	(0.01 ~ 3.00) %
	Molybdenum	(0.01 ~ 1.20) %
	Copper	(0.01 ~ 0.50) %
	Vanadium	(0.002 ~ 0.50) %
	Cobalt	(0.003 ~ 0.20) %
	Titanium	(0.001 ~ 0.30) %
	Aluminum	(0.004 ~ 0.10) %

2.008 Other Material and Products

Test method	Standard designation	Test range or Limits of detection
KS D 1662 : 2005	Determination of hexavalent chromium in corrosion protection coating - Automotive parts	0.1 µg/cm ² Min.
US EPA 30526 : 1996	Microwave Assisted Acid Digestion of Siliceous and Organically Based Matrices	
	(Cadmium, Lead, Mercury)	
US EPA 6010C : 2007	Inductively Coupled Plasma-Atomic Emission Spectrometry	
	Cadmium	2.3 µg/L Min.
	Lead	2.8 µg/L Min.
	Mercury	17 µg/L Min.

End.