



No. 222 (1/4)

CERTIFICATE OF ACCREDITATION

Name of Laboratory : S&T Daewoo Co., Ltd.

Representative : Taekwon, Kim

Address of Headquarters : 5 Songjeong-ri, Cheolma-myeon, Gijang-gun, Busan, Korea

Address of Laboratory : 5 Songjeong-ri, Cheolma-myeon, Gijang-gun, Busan, Korea

Duration : June 5, 2008 ~ June 4, 2012

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).

Mar. 19, 2010

Huh. Kyung

**Administrator,
Korea Laboratory Accreditation Scheme(KOLAS)**



No. 222 (2/4)

1. Mechanical Test

1.001 Metals and Related Products

Test method	Standard designation
KS B 0802 : 2003	Method of tensile test for metallic materials
KS B 0804 : 2006	Metallic materials - Bend test
KS B 0805 : 2005	Metallic materials - Test method of brinell hardness
KS B 0806 : 2005	Metallic materials - Test method of rockwell hardness
KS B 0810 : 2003	Method of impact test for metallic materials
KS B 0811 : 2003	Metallic materials - Vickers hardness test - Part 1: Test method

1.013 Physical Test

Test method	Standard designation
KS D 0246 : 2006	Methods of thickness test for metallic coatings
	5. Test Method for Coating Thickness by Microscopical Examination of a Cross Section
	7. Test Method for Coating Thickness by Eddy Current
KS D 9502 : 2007	Method of salt spray testing
ASTM B 117 : 2007	Standard Practice for Operating Salt Spray (Fog) Apparatus
GMW 3172 : 2004	Worldwide Engineering Standards
	Method 6.6 Vibration Tests
	Method 6.7 Temperature Cycle Applied During Vibration
	Method 6.8 Mechanical Shock
	Method 6.11 Low Temperature Wakeup Test
	Method 6.12 High Temperature
	Method 6.13 Power Temperature Cycle Test with Monitoring (PTC)
	Method 6.14 Temperature Shock Air (TS)
	Method 6.17 The Corrosion Salt Mist Test And Salt Spray Test
Method 6.18 Humidity Tests	



No. 222 (3/4)

1.013 Physical Test

Test method	Standard designation
MIL-STD-810F : 2000	Environmental Engineering Considerations and Laboratory Tests
	Method 501.4 High Temperature
	Method 502.4 Low Temperature
	Method 503.4 Temperature Shock
	Method 507.4 Humidity
	Method 509.4 Salt Fog
	Method 514.5 Vibration
	Method 516.5 Shock

2. Chemical Test

2.001 Iron and Steel

Test method	Standard designation
KS D 1652 : 2007	Iron and steel-Method for spark discharge atomic emission spectrometric analysis
	(Carbon, Magnesium, Aluminum, Silicon, Phosphorus, Sulfur, Titanium, Vanadium, Chromium, Manganese, Cobalt, Nickel, Copper, Zirconium, Niobium, Molybdenum, Tin, Tungsten, Lead)
KS D 1662:2005	Determination of hexavalent chromium in corrosion protection coating - Automotive parts
KS D 1673 : 2007	Methods for inductively coupled plasma emission spectrochemical analysis of steel
	(Aluminum, Silicon, Phosphorus, Titanium, Vanadium, Chromium, Manganese, Cobalt, Nickel, Copper, Molybdenum)
KS D 1803 : 2003	Methods for determination of sulfur in iron and steel
	10. Combustion, Infrared absorption method (Integration method)
KS D 1804 : 2003	Determination of Carbon in iron and steel
	8. Infrared absorption method (8.1 Integration method)



No. 222 (4/4)

2.008 Other Material and Products

Test method	Standard designation
USEPA 3052 : 1996	Microwave Assisted Acid Digestion of Siliceous and Organically Based Matrices (Aluminum, Antimony, Arsenic, Boron, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Sodium, Strontium, Thallium, Vanadium, Zinc)
USEPA 6010B : 1996	Inductively Coupled Plasma-Atomic Emission Spectrometry (Aluminum, Antimony, Arsenic, Boron, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Sodium, Strontium, Thallium, Vanadium, Zinc)

End.