

제507호(1/5)

국제공인시험기관인증서

기 관 명 : (주)코센 신울진시험소

대 표 자 : 김 두 일

법 인 등 록 번 호 : 134511-0030889

사업자등록번호 : 135-81-29165

법 인 주 소 : 경기도 성남시 중원구 상대원동 5442-1

사 업 장 소 재 지 : 경북 울진군 북면 덕천리 600번지 신울진원자력건설소

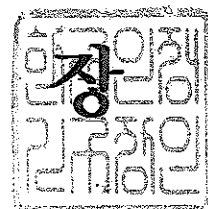
유효 기 간 : 2011년 12월 5일 ~ 2015년 12월 4일

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.

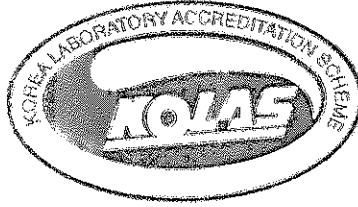
2011년 12월 5일

한 국 인 정 기 구



“이면사항기재”

1. 2011.12. 5 : 최초인정(1.003 시멘트 및 관련제품 19개 규격, 1.004 골재 및 관련
제품 15개규격)

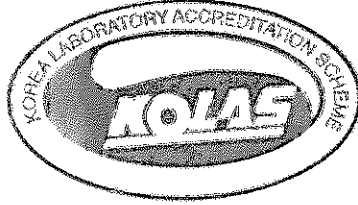


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01. 역학시험

1.003 시멘트 및 관련제품

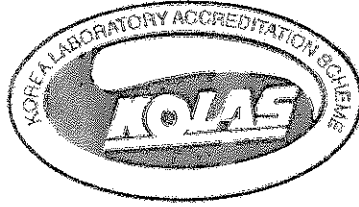
규격번호	규격명	시험범위 및 검출한계
ASTM C 109 : 2008	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)	1 779.2 kN 이하
ASTM C 151 : 2009	Standard Test Method for Autoclave Expansion of Hydraulic Cement	(0 ~ 4.1) MPa (0 ~ 600) psi
ASTM C 185 : 2008	Standard Test Method for Air Content of Hydraulic Cement Mortar	400 mL
ASTM C 204 : 2007	Standard Test Method for Fineness of Hydraulic Cement by Air-Permeability Apparatus (Method A)	(0 ~ 2.1) kg/cm ²
ASTM C 191 : 2008	Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle (Method A)	(1 ~ 50) mm
ASTM C 266 : 2008	Standard Test Method for Time of Setting of Hydraulic-Cement Paste by Gillmore Needles	Initial Needle : 113.4 g Final Needle : 453.6 g
ASTM C 430 : 2008	Standard Test Method for Fineness of Hydraulic Cement by the 45- μ m (No. 325) Sieve	체 : No. 325 지름 : (51 \pm 6) mm
ASTM C 451 : 2008	Standard Test Method for Early Stiffening of Hydraulic Cement (Paste Method)	50 % 이상
ASTM C 188 : 2009	Standard Test Method for Density of Hydraulic Cement	294 mL
ASTM C 441 : 2005	Standard Test Method for Effectiveness of Pozzolans or Ground Blast-Furnace Slag in Preventing Excessive Expansion of Concrete Due to the Alkali-Silica Reaction	(25 \times 25 \times 250) mm
ASTM C 1012 : 2009	Standard Test Method for Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solution	36 openings



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1.003 시멘트 및 관련제품

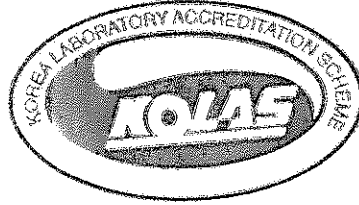
규격번호	규격명	시험범위 및 검출한계
ASTM C 39 : 2010	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens	1 779.2 kN
KS F 2405 : 2010	콘크리트 압축강도 시험 방법	1 779.2 kN
ASTM C 496 : 2004	Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens	1 779.2 kN
ASTM C 143 : 2010	Standard Test Method for Slump of Hydraulic-Cement Concrete	Base D : 200 mm, Top D : 100 mm, Height : 300 mm
ASTM C 231 : 2010	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method	7 L
ASTM C 138 : 2010	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete	1.1 L, 3.4 L
ASTM C 939 : 2010	Standard Test Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)	D 250 mm(10 inch)
ASTM C 1090 : 2010	Standard Test Method for Measuring Changes in Height of Cylindrical Specimens of Hydraulic-Cement Grout	(76 × 150) mm



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1.004 골재 및 관련제품

규격번호	규격명	시험범위 및 검출한계
ASTM C 136 : 2006	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates	9.5 mm (3/8 inch), 4.75 mm (No.4), 12.5 mm (1/2 inch), 2.36 mm (No.8), 1.7 mm (No.12), 600 μ m (No.30), 300 μ m (No.50)
ASTM C 566 : 1997	Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying	991 L, (110 \pm 5) $^{\circ}$ C
ASTM C 117 : 2004	Standard Test Method for Materials Finer than 75- μ m(No. 200) Sieve in Mineral Aggregates by Washing	75 μ m
ASTM C 40 : 2004	Standard Test Method for Organic Impurities in Fine Aggregates for Concrete	Colorless glass
ASTM D 4791 : 2010	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate	15 % 이하
ASTM C 142 : 2004	Standard Test Method for Clay Lumps and Friable Particles in Aggregates	5.0 % 이하
ASTM C 123 : 2004	Standard Test Method for Lightweight Particles in Aggregate	No. 50
ASTM C 127 : 2007	Standard Test Method for Density, Relative Density(Specific Gravity), and Absorption of Coarse Aggregate	7 L, 저울 : 24 kg \times 0.1 g
ASTM C 128 : 2007	Standard Test Method for Density, Relative Density(Specific Gravity), and Absorption of Fine Aggregate	몰드 높이 : (75 \pm 3) mm, 윗면 안지름 : (40 \pm 3) mm, 바닥 지름 : (90 \pm 3) mm
ASTM C 131 : 2006	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	(30 ~ 33) r/min
ASTM D 1411 : 2009	Standard Test Methods for Water-Soluble Chlorides Present as Admixtures in Graded Aggregate Road Mixes (Method A)	AC 200 V, 0.3 A, 60 W

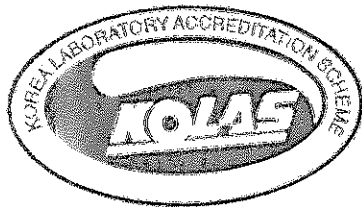


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1.004 골재 및 관련제품

규격번호	규격명	시험범위 및 검출한계
ASTM C 227 : 2010	Standard Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method)	(1.016 ~ 0.000 2) mm
ASTM C 88 : 2005	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	10 %
ASTM D 2419 : 2009	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate	(175 ± 2) cpm
ASTM C 29 : 2009	Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate	28.31 L, 9.34 L, 2.83 L, 14.2 L

끝.



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CERTIFICATE OF ACCREDITATION

Name of Laboratory : TÜV SÜD KOCEN Ltd. Shinulchin Testing Laboratory

Representative : Kim Du-il

Address of Headquarters : 5442-1, Sangdaewon-dong, Jungwon-gu,
Seongnam-si, Gyeonggi-do, Korea

Address of Laboratory : Shinulchin Nuclear Power Plant, 600 Dukchun-ri,
Buk-myeon, Uljin-gun, Gyeongsangbuk-do, Korea

Duration : December 5, 2011 ~ December 4, 2015

Scope of Accreditation

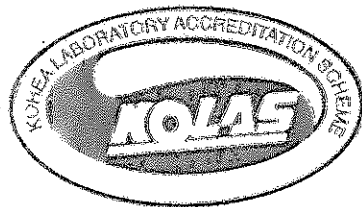
(Scope of Accreditation is described in the accompanying Annex)

This testing laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025 : 2006. 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).

Dec. 5, 2011

Administrator,

Korea Laboratory Accreditation Scheme(KOLAS)

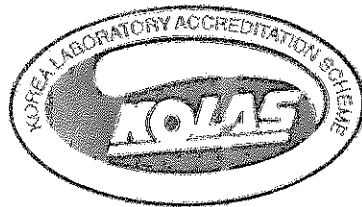


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01. Mechanical Test

1.003 Cement and Related Products

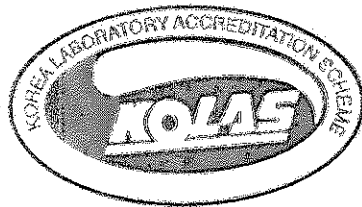
Test method	Standard designation	Test range or Limits of detection
ASTM C 109 : 2008	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)	Max. 1 779.2 kN
ASTM C 151 : 2009	Standard Test Method for Autoclave Expansion of Hydraulic Cement	(0 ~ 4.1) MPa (0 ~ 600) psi
ASTM C 185 : 2008	Standard Test Method for Air Content of Hydraulic Cement Mortar	400 mL
ASTM C 204 : 2007	Standard Test Method for Fineness of Hydraulic Cement by Air-Permeability Apparatus (Method A)	(0 ~ 2.1) kg/cm ²
ASTM C 191 : 2008	Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle (Method A)	(1 ~ 50) mm
ASTM C 266 : 2008	Standard Test Method for Time of Setting of Hydraulic-Cement Paste by Gillmore Needles	Initial Needle :113.4 g Final Needle :453.6 g
ASTM C 430 : 2008	Standard Test Method for Fineness of Hydraulic Cement by the 45-μm (No. 325) Sieve	Sieve : No. 325 D : (51 ± 6) mm
ASTM C 451 : 2008	Standard Test Method for Early Stiffening of Hydraulic Cement (Paste Method)	Min. 50 %
ASTM C 188 : 2009	Standard Test Method for Density of Hydraulic Cement	294 mL
ASTM C 441 : 2005	Standard Test Method for Effectiveness of Pozzolans or Ground Blast-Furnace Slag in Preventing Excessive Expansion of Concrete Due to the Alkali-Silica Reaction	(25 ×25 ×250) mm
ASTM C 1012 : 2009	Standard Test Method for Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solution	36 openings



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1.003 Cement and Related Products

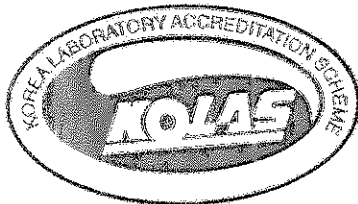
Test method	Standard designation	Test range or Limits of detection
ASTM C 39 : 2010	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens	1 779.2 kN
KS F 2405 : 2010	Standard Test Method for Compressive Strength of Concrete	1 779.2 kN
ASTM C 496 : 2004	Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens	1 779.2 kN
ASTM C 143 : 2010	Standard Test Method for Slump of Hydraulic-Cement Concrete	Base D : 200 mm, Top D : 100 mm, Height : 300 mm
ASTM C 231 : 2010	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method	7 L
ASTM C 138 : 2010	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete	1.1 L, 3.4 L
ASTM C 939 : 2010	Standard Test Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)	D : 250 mm(10 inch)
ASTM C 1090 : 2010	Standard Test Method for Measuring Changes in Height of Cylindrical Specimens of Hydraulic-Cement Grout	(76 × 150) mm



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1.004 Aggregates and Related Products

Test method	Standard designation	Test range or Limits of detection
ASTM C 136 : 2006	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates	9.5 mm (3/8 inch), 4.75 mm (No.4), 12.5 mm (1/2 inch), 2.36 mm (No.8), 1.7 mm (No.12), 600 μ m (No.30), 300 μ m (No.50)
ASTM C 566 : 1997	Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying	991 L, (110 \pm 5) $^{\circ}$ C
ASTM C 117 : 2004	Standard Test Method for Materials Finer than 75- μ m(No. 200) Sieve in Mineral Aggregates by Washing	75 μ m
ASTM C 40 : 2004	Standard Test Method for Organic Impurities in Fine Aggregates for Concrete	Colorless glass
ASTM D 4791 : 2010	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate	Max.15 %
ASTM C 142 : 2004	Standard Test Method for Clay Lumps and Friable Particles in Aggregates	Max. 5.0 %
ASTM C 123 : 2004	Standard Test Method for Lightweight Particles in Aggregate	No. 50
ASTM C 127 : 2007	Standard Test Method for Density, Relative Density(Specific Gravity), and Absorption of Coarse Aggregate	7 L, Balance : 24 kg \times 0.1 g
ASTM C 128 : 2007	Standard Test Method for Density, Relative Density(Specific Gravity), and Absorption of Fine Aggregate	Mold height : (75 \pm 3) mm, inside d. (top) : (40 \pm 3) mm, inside d. (bottom) : (90 \pm 3) mm
ASTM C 131 : 2006	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	(30 ~ 33) r/min
ASTM D 1411 : 2009	Standard Test Methods for Water-Soluble Chlorides Present as Admixtures in Graded Aggregate Road Mixes (Method A)	AC 200 V, 0.3 A, 60 W



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1.004 Aggregates and Related Products

Test method	Standard designation	Test range or Limits of detection
ASTM C 227 : 2010	Standard Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method)	(1.016 ~ 0.000 2) mm
ASTM C 88 : 2005	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	10 %
ASTM D 2419 : 2009	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate	(175 ± 2) cpm
ASTM C 29 : 2009	Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate	28.31 L, 9.34 L, 2.83 L, 14.2 L

End.