

# PUBLIC WORKS LABORATORIES TEST DIRECTORY

## LABORATORIES

CL	Central Laboratory
NL	North Lantau Laboratory
KL	Kowloon Laboratory
TP	Tai Po Laboratory
TS	Tin Shui Wai Laboratory
TW	Tsuen Wan Laboratory

## KEY TO AVAILABILITY OF TEST

A	Laboratory accredited by HOKLAS for the test
A*	Conditional accreditation only. HOKLAS certificates are issued only if the relevant calibration requirements are met.
√	Laboratory not accredited for the test
∇	Laboratory not set up to perform the test but has equipment
<input type="checkbox"/>	Test not performed in the laboratory

- Notes:
1. Test certificates will normally be posted but, by arrangement, may be collected from the laboratory to which the samples were delivered.
  2. *Italic font* indicates a test which can be performed but is not frequently requested, i.e. infrequent test (performed less than once per year). The test may require longer to perform if equipment needs to be calibrated prior to performing the test and/or staff need to be re-trained and audited before performing the test. Additional samples may be required for re-training/auditing

## Aggregates

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
AGG 1.1	Determination of particle size distribution of aggregate by sieve analysis	BS812:Section 103.1:1985	16.51 & 9.49		A	A	A	A	A	A
AGG 1.4	Determination of clay, silt and dust in fine or coarse aggregates by decantation method	BS812:Part 1:1975 Section 7.2	16.51		A	A	A	A	A	A
AGG 1.5	Determination of aggregate particle shape - flakiness index	BS812:Section 105.1: 1989	16.51		A	A	A	A	A	A
AGG 1.6	Determination of aggregate particle shape - elongation index	BS812:Section 105.2: 1990			A	A	A	A	A	A
AGG 1.7	Sieve analysis of mineral filler for road and paving materials	ASTM D546-94 with modification							√	
AGG 2.1(a)	Determination of relative densities and water absorption of aggregate with nominal size larger than 10 mm (wire basket method)	BS812:Part 2:1975 Section 5 with modification	16.51 & 9.49		A		A	A	A	A
AGG 2.1(b)	Determination of relative densities and water absorption of aggregate with nominal size not larger than 10 mm (pycnometer method)	BS812:Part 2:1975 Section 5 with modification	16.51 & 9.49		A		A	A	A	A
AGG 2.2(a)	<i>Determination of specific gravity and water absorption of coarse aggregate</i>	<i>ASTM:C127-88 with modification</i>			∇				√	∇
AGG 2.2(b)	<i>Determination of specific gravity and water absorption of fine aggregate</i>	<i>ASTM:C128-88</i>			∇				√	∇
AGG 2.3	Determination of the compaction fraction value of aggregates for granular bed	GS(1992) App. 5.2	5.86		√	√	√	√	√	√
AGG 2.4(a)	Determination of particle densities and water absorption of aggregate with nominal size larger than 10 mm (wire basket method)	BS812:Part 2:1995 Section 5.3			√	√	√	√	√	√
AGG 2.4(b)	Determination of particle densities and water absorption of aggregate with nominal size not larger than 10 mm (pycnometer method)	BS812:Part 2:1995 Section 5.5			√	√	√	√	√	√
AGG 3.1	<i>Determination of aggregate impact value</i>	<i>BS812:Part 112:1990</i>							√	
AGG 3.2	<i>Determination of aggregate crushing value (for standard size aggregates and non-standard size aggregates larger than the standard)</i>	<i>BS812:Part 110:1990</i>			√					
AGG 3.3	Determination of ten per cent fines value (for standard size aggregates and non-standard size aggregates larger than the standard)	BS812:Part 111:1990	16.51 & 9.49		A					A
AGG 3.6	<i>Resistance to degradation of small-size aggregate by abrasion and impact in the Los Angeles Machine</i>	<i>ASTM C131-81 and C535-81 with modification</i>							√	
AGG 3.7	Determination of aggregate soundness value	BS812:Part 121:1989			√					
AGG 3.8	<i>Determination of compactibility for graded aggregate</i>	<i>BS5835:Part 1:1980</i>			√					
AGG 5.1	<i>Determination of maximum metals and foreign material content for the recycled sub-base materials</i>	<i>WBTC No.: 12/2002, Appendix C Clause 9.43A(9)</i>			√					

## Bituminous materials

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
BIT 1.1	Determination of the penetration of semi-solid and solid bituminous materials with penetration up to 200	ASTM D5-95/05a	9.49	√						
BIT 1.2	Determination of solubility of bituminous binders	BS2000:Part 47:1983	9.49	√						
BIT 1.3(a)	Determination of softening point of bitumen having softening point 80°C or below by ring and ball method	BS2000:Part 58:1993	9.49	√						
BIT 1.3(b)	Determination of softening point of bitumen having softening point 80 °C or below by ring and ball method	BS2000:Part 58:2000 & BS EN 1427:2000	9.49	√						
BIT 1.4	Determination of loss on heating of bitumen and flux oil	BS2000:Part 45:1993	9.49	√						
BIT 1.5	Determination of specific gravity or density of semi-solid and solid bituminous materials by nickel crucible	ASTM D3289-85	9.49	√						
BIT 1.6	Determination of the ductility of bituminous materials	ASTM D113-86	9.49	√						
BIT 1.7	Determination of viscosity of asphalts by vacuum capillary viscometer	ASTM D2171-94/01	9.49	√						
BIT 1.9	Determination of the effect of heat and air on the penetration of asphaltic materials (thin-film oven test)	ASTM D1754-97	9.49	√						
BIT 3.1	Determination of bitumen content of bituminous paving materials by centrifuge extractor	ASTM D2172-88 Method A	9.52		A	A	A	A	A	A
BIT 3.2	Determination of aggregate grading of bituminous paving materials	ASTM C117-87 Procedure B & ASTM C136-84a with modifications	9.52		A	A	A	A	A	A
BIT 3.4	Determination of bulk specific gravity and density of specimens of compacted bituminous paving materials (for specimens that contain moisture)	ASTM D2726-88	9.52		A	A	A	A	A	A
BIT 3.5	Determination of theoretical maximum specific gravity of uncompacted bituminous paving materials (type A container, weighing in water method)	ASTM D2041-78	9.52		A	A	A	A	A	A
BIT 3.6	Determination of air void content in compacted dense or open bituminous paving materials	ASTM D3203-88	9.52		A	A	A	A	A	A
BIT 3.9(a)	Determination of bitumen content of bituminous paving materials (with aggregate size smaller than 28mm) by centrifuge extractor	ASTM D2172-95 Method A			A	A	A	A	A	A
BIT 3.9(b)	Determination of bitumen content of bituminous paving materials (with aggregate size greater than or equal to 28mm) by centrifuge extractor	ASTM D2172-95 Method A			A	A	A	A	A	A
BIT 3.10	Determination of aggregate grading of bituminous paving materials	ASTM C117-95 Procedure B & ASTM C136-96a with modifications			A	A	A	A	A	A
BIT 3.11	Determination of bulk specific gravity and density of non-absorptive compacted dense bituminous paving materials	ASTM D2726-96a			A	A	A	A	A	A
BIT 3.12(a)	Determination of theoretical maximum S.G. (Rice's S.G.) of bituminous paving materials (with aggregate size smaller than 28mm) using type A container, weighing in water method with modification	ASTM D2041-95			A	A	A	A	A	A
BIT 3.12(b)	Determination of theoretical maximum S.G. (Rice's S.G.) of bituminous paving materials (with aggregate size greater than or equal to 28mm) using type A container, weighing in water method with modification	ASTM D2041-95			A	A	A	A	A	A
BIT 3.13	Determination of air void content of compacted bituminous paving materials	ASTM D3203-94			A	A	A	A	A	A
BIT 3.14	Determination of Bitumen Content of Bituminous Paving Materials by Ignition Method	ASTM D6307-98							√	√
BIT 3.15	Determination of polymer modified binder content of hot-mixed paving mixtures and pavement samples containing polymer by the combination of both centrifuge and ignition method	Appendix 9.2 of P.S. for Highways Department							√	√
BIT 3.16	Determination of binder draindown of stone mastic asphalt	Contract particular specification with modification						√		
BIT 3.17	Determination of bulk specific gravity of bituminous paving mixtures	ASTM D 3203-94 & D3549-93a			√	√	√	√	√	√
BIT 3.18(a)	Determination of bulk specific gravity and density of compacted bituminous paving mixtures using paraffin-coated specimens of 100mm diameter	ASTM D1188-96			√	√	√	√	√	√
BIT 3.18(b)	Determination of bulk specific gravity and density of compacted bituminous paving mixtures using paraffin-coated specimens of 150mm diameter	ASTM D1188-96			√	√	√	√	√	√
BIT 3.19	Determination of air void content of compacted dense and open bituminous paving mixtures	ASTM D 3203-94			√	√	√	√	√	√
BIT 4.3	Determination of surface regularity by rolling straight edge	TRRL Supplementary Report 290			√	√	√	√	√	√
BIT 4.5	Determination of surface texture of carriageways	GS(1992) App. 10.1	10.57		√	√	√	√	√	√
BIT 4.8	Determination of permeability of friction course	GS(1992) App. 9.1	9.62		√	√	√	√	√	√
BIT 4.9	Determination of longitudinal and transverse surface regularity of carriageways by 3 meter straightedge	GS(1992) Cl. 10.55(3)	10.55		√				√	

## Building Blocks, bricks and concrete kerbs

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
BRK 1.1(a)	Dimension measurement for precast concrete bricks	BS6073:Part 1:1981		√						
BRK 1.1(b)	Measurement of dimensions for clay bricks	BS3921:1985	25.149	√						
BRK 1.2	Dimension measurement for concrete blocks	BS6073:Part 1:1981	11.61	√	∇	∇		∇		
BRK 2.1	Compressive strength of concrete blocks	BS6073:Part 1:1981 App. B	25.150	√						
BRK 2.3	Determination of characteristic compressive strength of interlocking blocks	GS(1992/2006) App. 11.1	11.77	√		∇		√	√	
BRK 2.4	Determination of compressive strength of clay bricks	BS3921:1985		√						
BRK 2.5	Determination of dimensions and transverse breaking load	BS6677:Part 1: 1986		√			√			
BRK 2.6(a)	Determination of water absorption properties of masonry units and segmental pavers	AS/NZS 4456.14:1997		√						√
BRK 2.6(b)	Determination of water absorption properties (cold water 24-h immersion test) of masonry units and segmental pavers	AS/NZS 4456.14:1997/2003, AS/NZS 4456.2:1997/2003 and Clause 11.88 (4) of GS2006	11.88(4)	√						√
BRK 2.7	Determination of dimensions for interlocking blocks and paving setts	Annex B of BS 6717:2001		√						
BRK 2.8	Determination of dimensions for paving slabs	Annex B of BS 7263-1:2001		√						
BRK 2.9	Determination of dimensions and transverse breaking load of clay pavers	Annex B and D of BS EN 1344:2002		√						
BRK 3.1	Determination of dimensions for granite or artificial granite paving setts	BS EN 1342:2001		√						
BRK 3.2	Determination of bending strength of concrete or artificial granite paving slabs	BS 7263-1:2001		√						
BRK 3.3	Determination of dimensions for natural/Artificial granite paving slabs or natural granite blocks	BS EN 1341:2001		√						
BRK 3.4	Determination of flexural strength of granite paving slabs	BS EN 1341:2001 & BS EN 12372:1999		√						
BRK 5.1	Determination of skid resistance value of clay and calcium silicate pavers for flexible pavements	BS6677:Part 1: 1986		√		∇	√			
BRK 5.2	Determination of unpolished skid resistance value (USRV) of clay pavers, slabs/setts of natural stone for external paving	Annex F of BS EN 1344:2002 / Annex D of BS EN 1341:2001 / Annex C of BS EN 1342:2001		√						

## Calibration

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
CAL 1.1	Verification of the grading of forces applied by uniaxial/universal/compression testing machines	BS1610:Part 1:1985 CS1:1990 App. D		A						
CAL 1.1(a)	<i>Load verification of uniaxial testing machine, using true/indicated force method, in compression/tension</i>	BS EN ISO 7500-1:1999		A						
CAL 1.1(b)	<i>Load verification of tensile testing machine, using true/indicated force method</i>	BS EN 10002-2:1992		A						
CAL 1.3	Performance verification of concrete compression machines by Footometer	BS1881:Part 115:1986 App. A CS1:1990 App. D		A						
CAL 1.5	Verification of the grading of forces applied by uniaxial compression testing machines	BS1610:Part 1:1992 CS1:1990 App. D		A						
CAL 1.6	Calibration of force measuring device	GEOSPEC 3 CL A3		A						
CAL 1.10	Calibration of force measuring device (load cell)	In-house test method		A						
CAL 2.1	<i>Calibration of pressure gauges using a dead-weight tester</i>	BS1780:1985		√						
CAL 2.2	Calibration of pressure or vacuum gauges	BS EN837-1:1998 CL. 6, 9.1, 9.2 and 10.2		A						
CAL 2.4	Calibration of pressure measuring device	GEOSPEC 3 CL A3.2		A						
CAL 3.1 (a)	Calibration of extensometer	BS3846:1970		A						
CAL 3.1 (b)	<i>Calibration of circumferential extensometer</i>	BS3846:1970		A						
CAL 3.1 (c)	<i>Calibration of optical linear displacement detector</i>	In-house test method		A						
CAL 3.1 (d)	<i>Calibration of extensometer for rubber tensile machine</i>	In-house test method		√						
CAL 3.1 (e)	<i>Calibration of laser extensometer</i>	In-house test method		√						
CAL 3.1 (f)	Calibration of extensometer	BSEN 10002-4:1995/BSEN ISO 9513 : 2002		A						
CAL 3.2	Calibration of calipers	In-house test method		A						
CAL 3.3	Calibration of external micrometers	In-house test method		A						
CAL 3.4	Calibration of dial gauges	In-house test method		A						
CAL 3.5	Calibration of length measuring devices	In-house test method		A						
CAL 3.8	<i>Calibration of notched straight edge</i>	In-house test method		√						
CAL 3.9	<i>Calibration of lever system for the consolidation apparatus and direct shear apparatus</i>	In-house test method		√						
CAL 3.11	<i>Calibration of depth gauge</i>	In-house test method		√						
CAL 3.12	Calibration of scale rule	In-house test method		√						
CAL 3.13	Calibration of feeler gauge	In-house test method		√						
CAL 3.14	<i>Calibration of measuring tape</i>	In-house test method		√						
CAL 3.15	<i>Calibration of Engineers' Square</i>	In-house test method based on 10.1, 10.2, 10.3, 10.4 & 10.8 of BS 939:1977		√						
CAL 4.1	<i>Checking of skid-resistance tester</i>	BS 812: Part 114: 1989		√						
CAL 4.2	<i>Checking of working standard surface for skid-resistance tester</i>	BS 812: Part 114: 1989		√						
CAL 4.3	<i>Calibration of flatness of surface plate</i>	In-house test method		√						
CAL 4.4	Calibration of stopwatch	In-house test method		√						
CAL 4.5	Calibration of flatness and parallelism of platen surface	In-house test method		√						
CAL 4.6	<i>Verification of Grading of Rockwell Hardness Testing Machine</i>	BS891:1989		√						
CAL 4.7	<i>Calibration of skid resistance tester</i>	BS EN 1097-8:2000		A						
CAL 6.1	Calibration of thermocouples and thermometers	In-house test method		A						
CAL 6.2	Verification of temperature range of constant temperature enclosures	In-house test method		√						
CAL 6.3	<i>Calibration of constant temperature baths</i>	In-house test method		√						
CAL 6.4	Calibration of high temperature enclosures	In-house test method		√						
CAL 10.1	<i>Calibration of electronic balances</i>	CSIRO Applied Physics Paper "Calibration of Balance" by Prowse (1985)		A						
CAL 10.2	Calibration of masses	In-house test method		A						
CAL 10.3	Calibration of balances of capacity over 30 kg	In-house test method		√						
CAL 10.4	Calibration of balance	CSIRO Monograph 4 : NML Technology Transfer Series 'The Calibration of Weight and Balances' by Morris and Fen (Third Edition 2003)		A						
CAL 10.5	<i>Calibration of balances of capacity over 30 kg using load cell</i>	In-house test method		√						
CAL 20.1	Calibration of Automatic Volume Change Apparatus	Part II of Geospec 3		√						

## Cement

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
CEM 0.0	Sample receipt for cement	In-house procedure		√						
CEM 1.1	Cement density test	BS4550:Part 3:Section 3.2:1978	16.51	A						
CEM 1.2	Cement fineness test	BS4550:Part 3:Section 3.3:1978 (AMD 4387, 5703)	16.51	A						
CEM 1.3	Determination of cement standard consistence	BS4550:Part 3:Section 3.5 :1978 (AMD 5705)	16.51	A						
CEM 1.4	Test for cement setting times	BS4550:Part 3: Section 3.6 :1978 (AMD 5706)	16.51	A						
CEM 1.5	Cement soundness test	BS4550:Part 3:Section 3.7:1978 (AMD 5707)	16.51	A						
CEM 1.6	Tests for cement setting times	BS EN 196-3:1995		A						
CEM 1.7	Determination of cement standard consistence	BS EN 196-3:1995		A						
CEM 1.8	Cement soundness test	BS EN 196-3:1995		A						
CEM 1.9	Cement Density Test	BS EN 196-6 : 1992		A						
CEM 1.10	Cement Fineness Test by Blaine Method	BS EN 196-6 : 1992		A						
CEM 2.1	Cement strength by compressive strength tests on concrete cubes (100 mm concrete cube)	BS4550:Part 3:Section 3.4 :1978 (AMD 4247, 4498 & 5704)	16.51	A						
CEM 2.2	Cement strength by compressive strength tests on mortar cubes (70.7 mm mortar cube)	BS4550:Part 3:Section 3.4 :1978 (AMD 4247, 4498 & 5704)	16.51	A						
CEM 2.3	Determination of cement strength by flexural and compressive strength tests on prismatic specimens	BS EN 196-1:1995		A						

## Chemical

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
CHM 0.0	Quality Control Manual for Chemical Testing Unit	Quality manual		√						
CHM 0.1	Miscellaneous Work Instructions for Chemical Testing Unit	Quality manual		√						
CHM 1.1	Determination of chloride ion content of concrete admixtures	BS5075:Part 1: 1982 Appendix E	16.10 & 16.51	A						
CHM 1.2	Determination of total alkali content of concrete admixtures	In-house test method		A						
CHM 2.1	Determination of chloride content of aggregate	BS812:Part 4:1976 (Excluding Cl.3.2)		√						
CHM 2.2	Determination of sulphate content of aggregate	BS812:Part 118:1988 (Excluding Cl.4)		√						
CHM 2.3	Determination of water-soluble chloride content of aggregate	BS812:Part 117:1988 (Excluding Cl.4)		A						
CHM 2.4	Determination of acid-soluble material in fine aggregate	BS812:Part19:1985 (Excluding Cl.4)		√						
CHM 2.5	Potential reactivity of aggregate (chemical method)	ASTM C289-87 (Excluding Cl.14.4)		√						
CHM 3.1	Calibration of volumetric glassware	In-house test method		√						
CHM 3.2	Calibration of volumetric plasticware	In-house test method		√						
CHM 3.3	Performance Check of Atomic Absorption/ Flame Emission Spectrophotometer	ASTM E663-86		√						
CHM 3.4	Performance check of UV-visible spectrophotometer	Service manual of Shimadzu		√						
CHM 4.1&4.2	Determination of Chemical Composition of Ordinary Portland Cement	BS4550:Part 2:1970	16.51	A						
CHM 4.3	Determination of chemical composition of Portland PFA cement	BS3892:Part1:1982, BS4550:Part2:1970, BS6588:1985, in-house test method	16.51	A						
CHM 4.5	Determination of the loss on ignition in accordance with BS EN 196-2 95 - Clause 7	BS EN 196-2 95 Clause 7		√						
CHM 4.6	Gravimetric determination of sulphate in accordance with BS EN 196-2 95 - Clause 8	BS EN 196-2 95 Clause 8		√						
CHM 4.7	Determination of residue insoluble in hydrochloric acid and sodium carbonate in accordance with BS EN 196-2 95 - Clause 9	BS EN 196-2 95 - Clause 9		√						
CHM 4.8	Determination of chloride content in accordance with BS EN 196-21:1992 - Clause 4	BS EN 196-21:1992 - Clause 4		√						
CHM 4.9	Determination of AL <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , MgO and C <sub>3</sub> A contents of cement	In-house test method		√						
CHM 4.10	Determination of the total alkali content of cement	BS EN 196- 21: 1992		√						
CHM 5.1	Determination of cement content of hardened concrete	CS1:1990 Section 21		√						
CHM 5.2	Determination of aggregate content of hardened concrete	CS1:1990 Section 21		√						
CHM 5.3	Determination of chloride content of hardened concrete	CS1:1990 Section 21 or BS1881:Part124:1988		A						
CHM 5.4	Determination of sulphate content of hardened concrete	CS1:1990 Section 21		A						
CHM 5.5	Test for presence of pulverised fuel ash of hardened concrete	CS1:1990 Section 21		√						
CHM 5.6	Determination of the depth of carbonation of hardened concrete	In-house test method		√						
CHM 5.7	Determination of chloride content of hardened concrete dust	BS 1881:Part 124:1988		A						
CHM 6.1&6.2	Determination of chemical composition of PFA	BS3892:Part 1:1982, BS4550:Part2:1970	16.51	A						
CHM 6.3	Determination of total alkali content in PFA	In-house test method		A						
CHM 6.4	Determination of chemical composition of PFA	BS3892: Part 1:1997		√						
CHM 6.5	Determination of total alkali content of PFA	BS EN 196-21:1992		√						
CHM 6.6	Determination of free calcium oxide content in fly ash	BS EN 451-1:1995		√						
CHM 7.1	Determination of the total sulphate content of soil and the sulphate content of groundwater and aqueous soil extracts by gravimetric method	Geospec 3 - 9.3	6.59	A						
CHM 7.2	Determination of water soluble chloride content of soil	Geospec 3 - 9.4		A						
CHM 7.3	Determination of pH value of soil	Geospec 3 - 9.5		A						
CHM 7.4	Determination of organic matter content of soil	Geospec 3 - 9.1		A						
CHM 7.5	Determination of carbonate content of soil	BS1377:Part 3:1990 Cl.6		√						
CHM 7.6	Determination of the mass loss of soil on ignition	Geospec 3 - 9.2		A						
CHM 8.1	Determination of coating weight of galvanised article	BS729:1971 App. A	15.37	√						
CHM 8.2	Determination of uniformity of coating of galvanised article	BS729:1971 App. B		√						
CHM 8.3(b)	Gavimetric determination of coatings on iron and steel articles			√						
CHM 8.3(c)	Determination of coating thickness of anodised aluminium	BS6161:Part 1:1984	15.37	√						
CHM 9.8	Determination of chloride in water	APHA 21 <sup>st</sup> Edition (2005) - Part 4500 - Cl Section B		√						
CHM 10.1	Determination of base number of grease for anchors	Geospec 1 - Table 1		√						
CHM 10.2	Determination of water content of grease for anchors	Geospec 1 - Table 1		√						
CHM 10.3	Determination of chloride ion content of grease for anchors	Geospec 1 - Table 1		√						
CHM 10.4	Determination of nitrate ion content of grease for anchors	Geospec 1 - Table 1		√						
CHM 10.5	Determination of sulphide ion content of grease for anchors	Geospec 1 - Table 1		√						
CHM 11.1	Determination of loss on ignition of G.G.B.S.	BS6699:1986		√						
CHM 11.2	Determination of manganese content of G.G.B.S.	BS4550:Part 2:1970		√						
CHM 11.3	Determination of sulphur as sulphide of G.G.B.S.	BS4550:Part 2:1970		√						
CHM 12.1	Preparation of Standard Calcium Oxide Solution.	In-house method		√						

**Concrete**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
CON 1.1	Determination of slump	BS1881:Part 102:1983 (AMD 6090, 6727)	16.55	√						
CON 1.1(a)	Determination of slump	CS1:1990 Section 2	16.55	√						
CON 2.3	Compression test of concrete cubes and cement grout cubes	CS1:1990 V1 Sect 10 & V2 Sect 12 & 16 (AMD 1101, 1201, 1202 & 1203)	16.58	A	A	A		A	A	
CON 2.4(a)	Compressive strength of concrete cores (for 100mm diameter size)	CS1:1990, V2: Sect 15 (AMD 1101, 1201, 1202 & 1203)	16.63	A				A	A	
CON 2.4(b)	Compressive strength of concrete cores (for 150mm diameter size)	CS1:1990, V2: Sect 15 (AMD 1101, 1201, 1202 & 1203)	16.63	A				A	A	
CON 2.5	Determination of tensile splitting strength of concrete cylinder	CS1:1990, V2: Sect13 (AMD 1101, 1201, 1202, 1203 & 1204)		A				A		
CON 2.6	Measurement of dimensions & determination of transverse strength of precast concrete kerbs	BS7263:Part 1:1994	11.51	A			√			
CON 2.7	Water absorption of kerbs	BS 7263:Part 1:1994 Annex C	11.51	√						
CON 2.8	Test on concrete flags	BS7263:Part 1:1990		√						
CON 5.4	Mortar bar test	ASTM 1260-94		√						
CON 5.5	Accelerated mortar bar test	In-house test method		√						
CON 5.6	Determination of compressive strength of grout cube	CS1:1990	16.63	√	√					√
CON 5.7	Determination of static modulus of elasticity in compression	CS1:1990 Sect 17		√						
CON 5.8	Determination of water absorption of concrete	BS1881:Part 122:1983		√			√	√		
CON 5.9	Determination of initial surface absorption of concrete	BS 1881:Part 208:1996		√						
CON 5.10	Determination of capillary absorption of concrete	BS1217:1997		√						
CON 5.11	Determination of strain in concrete	BS1881:Part 206:1986		√						
CON 5.12	Determination of electrical indication of concrete's ability to resist chloride ion penetration	ASTM C1202 -05		√						
CON 5.13	Flow of grout for preplaced - aggregate concrete (Flow cone method)	ASTM C939-97/02		√						
CON 5.14	Testing of bleeding and free expansion of grout	GS 1992/2006, Section 17 Clause 17.60	17.60	√						
CON 5.15	Determination of the bending strength of wall panels	AS/NZS 2908.2:2000		√						
CON 5.16	Detection of potential alkali-reactivity of aggregates by the method for aggregate combinations using concrete prisms	RILEM AAR-3 method		√						
CON 6.5	Surface hardness testing by rebound hammer	BS1881:Part 202:1986			√	√		√	√	

**Geotextile**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
GTL 1.1	Determination of pullout resistance of geotextiles and geotextile-related products by pullout box in soil	EN 13738:2004 with modification		A						
GTL 2.1	Determination of tensile properties of geotextile by the wide-width strip method	ASTM D4595-86		√						
GTL 2.2	Determination of grab breaking load and elongation of geotextile	ASTM D4632-91		√						
GTL 3.1	Determination of connection strength between geosynthetics and segmental concrete units	NCMA Test method SRWU-1 with modification		A						
GTL 3.2	Determination of shear strength between segmental concrete units	NCMA Test method SRWU-2 with modification		A						

**Hydrated Lime**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
LIM 1.1	Determination of density	BS890:1972 App. K	25.67	√						
LIM 1.2	Determination of fineness	BS890:1972 App. E	25.67	√						
LIM 1.3	Determination of workability	BS890:1972 App. L	25.67	√						
LIM 1.4	Determination of soundness by the pat test	BS890:1972 App. G	25.67	√						

**Miscellaneous tests**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
MIS 2.1	Determination of Skid Resistance Value of Road Surface in accordance with Guidance Notes on Road Testing (RD/GN/009) issued by Highways Department	Guidance Notes on Road Testing (RD/GN/009)				√	√	√	√	
MIS 4.1	Determination of extrusion of joint filler	GS(1992) App. 16.3		√						
MIS 4.2	Weathering test of joint filler	In-house method		√						
MIS 4.3	Determination of the recovery value and reduction of joint filler	GS(1992) App. 16.3		√						
MIS 5.1	Determination of length of installed steel soil nail with a pre-installed wire by the use of Time Domain Reflectometry (TDR) cable fault locator	In-house method		√						
MIS 5.2	Determination of Electrical Resistance and Grout Integrity of Soil Nail	In-house method		√						
MIS 6.1	Determination of head injury criterion value for impact absorbing playground surfacing	BS EN 1177:1998		A						
MIS 7.1	Measurement of coating thickness by magnetic method (Non-magnetic coatings on magnetic substances)	ISO 2178: 1982					√			
MIS 8.1	Determination of mesh breaking force of netting	BS EN ISO 1806:2002		√						
MIS 9.1	Determination of density of non-cellular plastics	Method 620A of BS2782:Part 6:1991/ISO 1183:1987		√						

**PFA**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
PFA 0.0	Sample receipt for Pulverised Fuel Ash (PFA)	In-house procedure		√						
PFA 1.1	Determination of fineness of Pulverised Fuel Ash (PFA)	BS3892:Part 1:1982 App. D (AMD 4629)	16.51	A						
PFA 1.2	Determination of water requirement of Pulverised Fuel Ash (PFA)	BS3892:Part 1:1982 App. E (AMD 4629)	16.51	A						
PFA 1.3	Determination of fineness of Pulverised-fuel ash (PFA)	BS3892:Part 1:1997 Annex D		√						
PFA 1.4	Determination of water requirement of Pulverised-fuel ash (PFA)	BS 3892: Part 1: 1997 Annex E		√						
PFA 1.5	Determination of particle density of Pulverized-fuel ash (PFA)	BS 3892 : Part 1 : 1997 Clause 7		√						
PFA 1.6	Determination of initial setting times of Pulverized-fuel ash (PFA)	BS 3892 : Part 1 : 1997 Clause 10		√						
PFA 1.7	Determination of standard consistence of Pulverized-fuel ash (PFA)	BS 3892 : Part 1 : 1997 Clause 10		√						
PFA 1.8	Determination of soundness of Pulverized-fuel ash (PFA)	BS 3892 : Part 1:1997 Clause 11		√						
PFA 1.9	Determination of strength factor of PFA	BS 3892 Part 1 : 1997 Annex F		√						

**Pipes**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
PIP 1.1(a)	Water absorption of concrete pipe	BS5911:Part 100:1988	5.82	√						√
PIP 1.1(b)	Water absorption of vitrified clay pipe	BS65:1991	5.82	√						
PIP 1.1(c)	Determination of water absorption of concrete pipes	Appendix E of BS5911:Part 120:1989		√						
PIP 1.4	Heat reversion test for unplasticized polyvinyl chloride (UPVC) pipes	BS3506:1969/BS5481:1977/BS4660:1989/BS4514:1983		√						
PIP 2.1(a)	Crushing strength test on concrete pipe	BS5911:Part 100:1988	5.82	√						
PIP 2.1(b)	Crushing strength test on vitrified clay pipe	BS65:1991	5.82	√						
PIP 2.1(c)	Determination of crushing strength of vitrified clay pipe	BS EN 295:Part 3:1991		√						
PIP 2.1(e)	Determination of crushing strength of concrete pipes	BS 5911:Part 120:1989		√						
PIP 2.2	Determining impact resistance of unplasticized polyvinyl chloride (UPVC) pipes	BS3506:1969/BS5481:1977/BS4660:1989/BS4514:1983	5.82	√						
PIP 2.3	Determination of tensile properties of unplasticized polyvinyl chloride (UPVC) pipes	BS3506:1969/BS4660:1989/BS4514:1983		√						

**Rock**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
ROC 1.1(a)	Preparation of thin sections (28 mm x 48 mm)	In-house test method		√						
ROC 1.1(b)	Preparation of thin sections (50 mm x 75 mm)	In-house test method		√						
ROC 1.1(c)	Preparation of concrete or rock polished plates	In-house test method		√						
ROC 1.2	Preparation of rock core specimens and determination of dimensional and shape tolerances	ASTM D4543-91 with modifications		A						
ROC 2.1	Determination of water content	ASTM D2216-98		√						
ROC 2.2	Determination of porosity/density using saturation and caliper techniques	ISRM suggested method (1981) with modifications		√						
ROC 2.3	Determination of porosity/density using saturation and buoyancy techniques	ISRM suggested method (1981) with modifications		√						
ROC 2.4	Determination of the Schmidt rebound hardness	In-house test method		√						
ROC 2.5	Determination of the shore scleroscope hardness	ISRM suggested method (1981) with modifications		√						
ROC 2.6	Determination of the slake-durability index	ISRM suggested method (1981) with modifications		√						
ROC 2.7	Determination of friction characteristics of joints by tilt table and joint profiler	In-house test method		√						
ROC 2.8	Determination of point load strength for diametral and axial tests	ASTM D5731-95		A						
ROC 2.9	Determination of Cerchar Abrasiveness Index (CAI)	Cerchar Scratch Test		√						
ROC 3.1	Determination of pulse velocities and ultrasonic elastic constants of rock	ASTM D2845-95		√						
ROC 3.2	Determination of unconfined uniaxial compressive strength	ASTM D2938-95		A						
ROC 3.4	Determination of splitting tensile strength of intact rock	ASTM D3967-95		√						
ROC 3.5	Determination of elastic moduli in uniaxial compressive test	ASTM D3148-96		A						
ROC 3.6	Determination of direct shear strength of rock discontinuities under constant normal force	ASTM D5607-95 with modifications		A						

**Rubber compounds**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
RUB 1.2	Determination of density	BS903:Part A1:1980 (1995)		√						
RUB 2.1	Hardness (IRHD) test	BS903:Part A26:1995	16.91	√						
RUB 3.1	Determination of tensile strength and elongation	BS903:Part A2:1995	16.91	√						
RUB 5.1	Determination of flexural properties of plastic fender	Appendix 21.1 of GS 2006 with modification		√						
RUB 5.2	Loading test on cylindrical rubber fender	GS (1992)	21.97	√						

## Soils

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
SOL 1.1(b)	Procedures for the longitudinal splitting of mazier sample tube	In-house method		√						
SOL 2.2(a)	Determination of moisture content by oven-drying at 105°C ± 5°C	GEO Report No. 36 Test 2.3.2A	6.65	A	A	A	A	A	A	A
SOL 2.2(b)	Determination of moisture content by oven-drying at 45°C ± 5°C	GEO Report No. 36 Test 2.3.2B	6.65	A	A	A	A	A	A	A
SOL 2.2(c)	Comparative test for the determination of moisture content by oven-drying	GEO Report No. 36 Test 2.3.2C		A	A	A	A	A	A	A
SOL 2.4	Determination of liquid limit by the cone penetrometer method	GEO Report No. 36 Test 2.4.3		A	A	A	A	√	A	
SOL 2.8	Determination of plastic limit, plasticity index and liquidity index	GEO Report No. 36 Test 2.5.3	6.59	A	A	A	A	√	A	
SOL 2.10(a)	Determination of particle size distribution by wet sieving (with dispersant)	GEO Report No. 36 Test 2.9.2A	6.59	A	A	A	A	A	A	A
SOL 2.10(b)	Determination of particle size distribution by wet sieving (without dispersant)	GEO Report No. 36 Test 2.9.2B	6.59	A	A	A	A	A	A	A
SOL 2.11(a)	Determination of particle size distribution by hydrometer method (with dispersant)	GEO Report No. 36 Test 2.9.5A		A	A	A	A	A	A	A
SOL 2.11(b)	Determination of particle size distribution by hydrometer method (without dispersant)	GEO Report No. 36 Test 2.9.5B		A	A	A	A	A	A	A
SOL 2.12	Construction of a continuous PSD curve from the results of wet sieving and sedimentation tests	GEO Report No. 36 Test 2.9.6		A	A	A	A	A	A	A
SOL 2.15	Specific gravity of soil	ASTM D854-91 with modification		√	√		√	√	√	√
SOL 2.17	Determination of moisture content by microwave oven	GS(1992) App. 6.2	6.65	√	√	√	√			√
SOL 4.1(a)	Determination of the dry density/moisture content relationship: with 1000cc mould & 2.5 kg rammer (soil particles which are not susceptible to crushing)	GEO Report No. 36 Test 4.3.3A	6.62	A	A	A	A	A	A	A
SOL 4.1(b)	Determination of the dry density/moisture content relationship: with 1000cc mould & 2.5 kg rammer (soil particles which are susceptible to crushing)	GEO Report No. 36 Test 4.3.3B	6.62	A	A	A	A	A	A	A
SOL 4.1(c)	Determination of the dry density/moisture content relationship: with CBR mould & 2.5 kg rammer (soil particles which are not susceptible to crushing)	GEO Report No. 36 Test 4.3.4A	6.62	A	A	A	A	A	A	A
SOL 4.1(d)	Determination of the dry density/moisture content relationship: with CBR mould & 2.5 kg rammer (soil particles which are susceptible to crushing)	GEO Report No. 36 Test 4.3.4B	6.62	A	A	A	A	A	A	A
SOL 4.2(b)	Determination of the dry density/moisture content relationship of soils containing particles which are susceptible to crushing (using a CBR mould and 4.5 kg rammer)	BS1377:1975 Test 13 with modification		√	√	√	√	√	√	√
SOL 4.3(a)	Determination of CBR: Soaked specimen	BS1377:1990 Test 16 with modification		√			√			√
SOL 4.3(b)	Determination of CBR: Unsoaked specimen	BS1377:1990 Test 16 with modification		√			√			√
SOL 4.4	Determination of maximum dry density of sands	BS1377:Part1:1990 Clause 7.6.1, BS1377:Part4:1990 Clause 4.2 and Geospec 3 Clause 5.2 with modification		√					√	√
SOL 4.5	Determination of minimum dry density of sands	BS1377:Part1:1990 Clause 7.6.1, BS1377:Part 4:1990 Clause 4.4 and Geospec 3 Clause 5.2		√					√	√
SOL 4.6	Determination of density index of sands	BS1377:Part4:1990 Clause 4.6, PWLTM SOL 4.4, 4.5, 8.1(a)&(b), 8.3		√					√	√
SOL 4.7(a)	Determination of dry density/moisture content relationship of soils by vibrating hammer (soil particles which are not susceptible to crushing)	BS1377:Part 4:1990 Test 3.7 with modification		√	√		√	√	√	√
SOL 4.7(b)	Determination of dry density/moisture content relationship of soils by vibrating hammer (soil particles which are susceptible to crushing)	BS1377:Part 4:1990 Test 3.7 with modification		√	√		√	√	√	√
SOL 8.1(a)	Determination of the insitu bulk density and insitu dry density of soil by the sand replacement method: for fine- and medium-grained soils (small pouring cylinder)	GEO Report No. 36 Test 9.2.1	6.68		A	A	A	A	A	A
SOL 8.1(b)	Determination of the insitu bulk density and insitu dry density of soil by the sand replacement method: for fine-, medium- and coarse-grained soils (large pouring cylinder)	GEO Report No. 36 Test 9.2.2	6.68		A	A	A	A	A	A
SOL 8.3	Determination of density of soil by nuclear gauge	GS(1992) App. 6.3	6.68		√		√	√		
SOL 8.4	Determination of Insitu California Bearing Ratio (CBR)	BS 1377: Part 9:1990 Method 4.3 with Modification			√	√	√	√	√	√
SOL 8.6	Determination of relative compaction of fill material and sub-base material	GS(1992) Cl. 6.68, Cl 9.44	6.68, 9.44		√	√	√	√	√	√
SOL 8.7	Determination of penetration resistance of soil using GEO probe	GS(1992) App. 7.1					√			√

**Soils - Geospec**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing					
				CL	NL	KL	TP	TS	TW
GSP 5.1	Determination of Moisture Content by Oven-drying at 45°C ± 5°C	Geospec 3 - Test Method 5.1	6.65	A	A	A	A	A	A
GSP 5.2	Determination of Moisture Content by Oven-drying at 105°C ± 5°C	Geospec 3 - Test Method 5.2	6.65	A	A	A	A	A	A
GSP 5.3	<i>Comparative Test for Determination of Moisture Content by Oven-drying</i>	<i>Geospec 3 - Test Method 5.3</i>		A	A	A	A	A	A
GSP 6.1	Determination of Liquid Limit, Plastic Limit and Plasticity Index	Geospec 3 - Test Method 6.1	6.59	A	A	A	A	A	A
GSP 6.2	Determination of Liquidity Index	Geospec 3 - Test Method 6.2		A	A	A	A	A	A
GSP 7.1	<i>Determination of Particle Density by Gas Jar Method</i>	<i>Geospec 3 - Test Method 7.1</i>		A	∇	∇	∇	∇	
GSP 7.2	Determination of Particle Density by Small Pycnometer	Geospec 3 - Test Method 7.2		A	∇	∇	∇	∇	
GSP 8.1	Determination of Particle Size Distribution by Wet Sieving (with Dispersant)	Geospec 3 - Test Method 8.1	6.59	A	A	A	A	A	A
GSP 8.2	Determination of Particle Size Distribution by Wet Sieving (without Dispersant)	Geospec 3 - Test Method 8.2	6.59	A	A	A	A	A	A
GSP 8.5	Determination of Particle Size Distribution by Hydrometer(with Dispersant)	Geospec 3 - Test Method 8.5		A	A	A	A	A	A
GSP 8.6	Determination of Particle Size Distribution by Hydrometer (without Dispersant)	Geospec 3 - Test Method 8.6		A	A	A	A	A	A
GSP 8.7	Construction of a Continuous Particle Size Distribution Curve	Geospec 3 - Test Method 8.7		A	A	A	A	A	A
GSP 8.8	Determination of particle size distribution of rock fill material	Geospec 3 - Test Method 8.1/8.2	6.59 (3)					√	
GSP 10.1	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Not Susceptible to Crushing (1000cc mould and 2.5kg rammer)	Geospec 3 - Test Method 10.1	6.62	A	A	A	A	A	A
GSP 10.2	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Susceptible to Crushing (1000cc mould and 2.5kg rammer)	Geospec 3 - Test Method 10.2	6.62	A	A	A	A	A	A
GSP 10.3	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Not Susceptible to Crushing (CBR mould and 2.5kg rammer)	Geospec 3 - Test Method 10.3	6.62	A	A	A	A	A	A
GSP 10.4	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Susceptible to Crushing (CBR mould and 2.5kg rammer)	Geospec 3 - Test Method 10.4	6.62	A	A	A	A	A	A
GSP 10.5	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Not Susceptible to Crushing (1000cc mould and 4.5kg rammer)	Geospec 3 - Test Method 10.5	6.62	A	A	A	A	A	A
GSP 10.6	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Susceptible to Crushing (1000cc mould and 4.5kg rammer)	Geospec 3 - Test Method 10.6	6.62	A	A	A	A	A	A
GSP 10.7	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Not Susceptible to Crushing (CBR mould and 4.5kg rammer)	Geospec 3 - Test Method 10.7	6.62	A	A	A	A	A	A
GSP 10.8	Determination of Dry Density/Moisture Content relationship of Soils Containing Particles which are Susceptible to Crushing (CBR mould and 4.5kg rammer)	Geospec 3 - Test Method 10.8	6.62	A	A	A	A	A	A
GSP 11.1	Determination of Insitu Bulk Density and Insitu Dry Density of Soils by the Sand Replacement Method (with Small Pouring Cylinder)	Geospec 3 - Test Method 11.1	6.68		A	A	A	A	A
GSP 11.2	Determination of Insitu Bulk Density and Insitu Dry Density of Soils by the Sand Replacement Methods (with Large Pouring Cylinder)	Geospec 3 - Test Method 11.2	6.68		A	A	A	A	A
GSP 11.3	<i>Determination of In-situ Bulk Density of Soils by Nuclear Densometer</i>	<i>Geospec 3 - Test Method 11.3</i>	6.68		A*	A*	A*	A*	A*
GSP 11.4	Determination of Relative Compaction of Fill Materials	Geospec 3 - Test Method 11.4	6.68, 9.44		A	A	A	A	A
GSP 12.1	Determination of California Bearing Ratio (CBR)	Geospec 3 - Test Method 12.1		A					A
GSP 14.1	<i>The One-Dimensional Consolidation Test</i>	<i>Geospec 3 - Test Method 14.1</i>		A					
GSP 14.2	<i>The Isotropic Compression Test in a Triaxial Cell</i>	<i>Geospec 3 - Test Method 14.2</i>		A					
GSP 15.1	<i>The Unconsolidated Undrained Triaxial Compression Test without Pore Pressure Measurement</i>	<i>Geospec 3 - Test Method 15.1</i>		A					
GSP 15.2(a)	The Isotropically Consolidated Undrained Triaxial Compression Test with Pore Pressure Measurement (Single-stage)	Geospec 3 - Test Method 15.2		A					
GSP 15.2(b)	The Isotropically Consolidated Undrained Triaxial Compression Test with Pore Pressure Measurement (Multi-stage)	Geospec 3 - Test Method 15.2		A					
GSP 15.3	<i>The Isotropically Consolidated drained triaxial Compression Test with measurement of volume change</i>	<i>Geospec 3 - Test Method 15.3</i>		A					
GSP 15.4(a)	The Isotropically Consolidated Undrained triaxial Compression Test with Pore Pressure Measurement of Loosely Compacted Fill	In-house test method		A					
GSP 15.5	Constant-q Stress Path Test	In-house test method		√					
GSP 16.1	<i>The Direct Shear Test (Small Shear Box Apparatus)</i>	<i>Geospec 3 - Test Method 16.1</i>		A					
GSP 16.2	The Direct Shear Test (Large Shear Box Apparatus)	Geospec 3 - Test Method 16.2		A					
GSP 16.3	<i>Determination of Friction between Fill Material and Reinforcement Elements</i>	<i>Geospec 3 - Test Method 16.2 with modifications based on Geoguide 6</i>		√					

## Steel and other metals

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
STE 0.0	Reception of steel bar, wire and fabric	In-house procedure		√						
STE 1.5	Determination of mass per unit length of steel bars	BS4449:1988 Section 4	15.03 & 15.31	A						
STE 1.6	Determination of tensile properties of steel bars	BS4449:1988 Sect10.1	15.03 & 15.31	A						
STE 1.7	Cold bend test of steel bars	BS4449:1988 Sect 10.2	15.03 & 15.31	A						
STE 1.8	Rebend test of steel bars	BS4449:1988 Sect 10.3	15.03 & 15.31	A						
STE 1.9	Determination of mass per unit length of steel bars	CS2:1995		A						
STE 1.10	Determination of tensile properties of steel bars	CS2:1995		A						
STE 1.11	Cold bend tests of steel bars	CS2:1995		A						
STE 1.12	Rebend tests of steel bars	CS2:1995		A						
STE 2.1	Determination of mass per unit area, pitch and wire dimensions of steel fabric	BS4483:1985 Section 5	15.03 & 15.31	A						
STE 2.2	Determination of tensile properties of steel fabric	BS4483:1985 Section 12.1 with modification	15.03 & 15.31	A						
STE 2.3	Rebend test of steel fabric	BS4482:1985 Section 12.1 with modification	15.03 & 15.31	A						
STE 2.4	Weld shear test of steel fabric	BS4483:1985 Sect 12.2	15.03 & 15.31	A						
STE 2.5	Determination of Mass, Pitch and Wire Dimension of Steel Fabric	BS4483:1998	Table 15.2	√						
STE 2.6	Determination of Tensile Properties of Steel Fabric	BS4483:1998	Table 15.2	√						
STE 2.7	Rebend Test of Steel Fabric	BS4483:1998	Table 15.2	√						
STE 2.8	Weld Shear Test of Steel Fabric	BS4483:1998	Table 15.2	√						
STE 3.1	Determination of mass per unit length of cold reduced steel wires	BS4482:1985 Sect 5	15.03 & 15.31	√						
STE 3.2	Determination of tensile properties of cold reduced steel wires	BS4482:1985 Sect 12	15.03 & 15.31	√						
STE 3.3	Rebend test of cold reduced steel wires	BS4482:1985 Section 12.2 with modification	15.03 & 15.31	√						
STE 3.6	Testing of stranded steel wire rope	BS302:Part1:1987		√						
STE 4.2	Determination of tensile properties of structural section	BS4360:1986 Clause 23.1	18.04 & 19.07	A						
STE 4.5	Determination of tensile properties of steel tube	BS 1387:1985		√						
STE 4.7	Determination of tensile properties of structural steel	BS EN 10025-1:2004		A						
STE 4.8	Tensile testing of metallic materials	BS EN 10002-1:2001		A						
STE 4.9	Determination of tensile properties of hot finished structural hollow sections of non-alloy and fine grain steels, cold formed welded structural hollow sections of non-alloy and fine grain steels	BS EN 10210-1:2006 BS EN 10219-1:2006		√						
STE 5.1	Determination of dimensions and mass per unit length of 7-wire strands	BS5896:1980 Clause 24.2	17.06	√						
STE 5.2(b)	Determination of tensile properties of 7-wire strands (using clip on extensometer)	BS5896:1980 Sect A5	17.06	√						
STE 6.1	Determination of mass of manhole cover and gully grating	GS(1992/2006) Appendix 5.3		√						√
STE 6.2	Determination of the resistance to fracture of manhole cover and gully grating	GS(1992/2006) App. 5.3	5.94	√						√
STE 6.3	Bend test of step iron for manholes	BS1247:1990	5.26	√						
STE 6.4	Twist test of step iron for manholes	BS1247:1990	5.26	√						
STE 6.5	Pull-out test of step iron for manholes	BS1247:1990	5.26	√						
STE 6.6(a)	Hardness test: Vickers	BS427:1990		√						
STE 6.6(b)	Hardness test: Rockwell	BS891:1989 Section 7		√						
STE 6.7	Thickness test of epoxy coated steel bar	GS(1992) Cl.15.31(5)	15.31(5)	√						
STE 6.8	Adhesion test of epoxy coated steel bar	BS7295:Part 1:1990 with modification	15.31(5)	√						
STE 6.9	Continuity of the coating of epoxy coated steel bar	BS7295:Part 1:1990	15.32(C)	√						
STE 6.11	Determination of the ultimate breaking load of bolt and nut	In-house test method		√						
STE 6.12	Determination of tensile properties of stainless steel bolt	BS6105:1981 with modification		√						
STE 6.13	Proof load test of steel nuts	BS3692/BS4190/BS4395/BS6105 : 1967/1969/1981/2001		√						
STE 6.14	Determination of permanent elongation and tensile strength of coupled steel bars	GS(1992) with Corrigendum 2/2001		√						
STE 6.15(a)	Determination of tensile strength of full size bolts, screw and studs	BS6104:Part 1:1981 Cl. 8.2		√						
STE 6.15(b)	Determination of tensile strength of full size bolts and screws	BS 3692/BS4190 : 1967/2001		√						
STE 6.17	Static Testing on Steel Parapet Post	BS 6779:Part 1:1998 with modification		√						
STE 6.22	Loading Test for Surface Boxes, for Gas and Waterworks Purpose	Appendix A of BS 5834:Part 2:1983		√						
STE 6.23	Loading Test of Gully Tops and Manhole Tops for Vehicular and Pedestrian Areas. Determination of Mass for Gully Tops and Manhole Tops	BS EN124:1994		√						

**Tiles**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
TIL 1.1(a)	Determination of the length and width of ceramic tiles	BS6431:Part 10:1984		√						
TIL 1.1(b)	Determination of the thickness of ceramic tiles	BS6431:Part 10:1984		√						
TIL 1.2	Determination of the water absorption of ceramic tiles	BS6431:Part 11:1983		√						

**Timber**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
TIM 1.1	Determination of moisture content	BS373:1957 Section 2	21.92	√						
TIM 1.2	Determination of density	BS373:1957 Section 5	21.92	√						
TIM 2.2	Static bending test	BS373:1957 Section 6	21.92	√						
TIM 2.3	Janka indentation test	BS373:1957 Section 9	21.92	√						
TIM 2.4	End face compression test	BS373:1957 Section 8a and 8b	21.92	√						
TIM 2.5	Shear test (parallel to grain)	BS373:1957 Section 10	21.92	√						

**Thermoplastic road marking materials**

PWLTM No.	Test Description	Method	GS Clause	Availability of Testing						
				CL	NL	KL	TP	TS	TW	
TPL 0.0	Sampling and Preparation	BS3262:Part 1:1989 App. B	12.23	√						
TPL 1.1	Luminance factor test	BS3262:Part 1:1989 App. F	12.23	√						
TPL 1.2	Heat stability test	BS3262:Part 1:1989 App. G	12.23	√						
TPL 1.3	Skid resistance test	BS3262:Part 1:1989 App. J	12.23	√						
TPL 1.5	Softening point test	BS3262:Part 1:1989 App. E	12.23	√						
TPL 1.6	Flow resistance test	BS3262:Part 1:1989 App. H	12.23	√						
TPL 1.7	Determination of thickness of thermoplastic road marking	BS3262:Part 1:1989 App. B	12.23	√						