



Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

ADDRESS : Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan,
地址 New Territories, Hong Kong
香港新界火炭山尾街19-25號宇宙工業中心B座9樓E 及 F室

ENQUIRY : Mr Stanley TSE Wai-lai, General Manager
查詢 謝懷禮先生，總經理

TELEPHONE : 2185 0900
電話

FAX : 2687 6752
傳真

E-MAIL : qtc@qtc-hk.com
電郵

WEBSITE ADDRESS : www.qtc-hk.com
網址

CLIENTELE : Public
服務對象 公眾

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

ADDRESS

地址

Main Laboratory : Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Branch Laboratories : Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong
香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號鋪

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Flat N, 17/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 17 樓 N 室

ACCREDITED TEST CATEGORY : Calibration Services 校正服務
Construction Materials 建築材料
認可測試類別 Environmental Testing 環境測試
Miscellaneous 雜類

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Construction materials testing equipment		
- Cement grout flow cone	Verification in accordance with in-house method CAL-CGFLOWCONE for the performance as specified in: ASTM C939-02 Cl. 8; or ASTM C939-16a Cl. 9 Time of efflux of water from cone: 8.0s	0.07 s
- Compacting bar	Verification in accordance with in-house method CAL-COMPBAR for the dimensional and mass requirements as specified in CS1: 2010 Vol. 1 App. A10 Dimensions of ramming face: 25 mm x 25 mm Length: 380 mm Mass: 1.8 kg	0.1 mm 0.5 mm 4 g
- Covermeter	Calibration for depth of cover in accordance with in-house method CAL-COVERMETER(C) using a device as specified in BS 1881: Part 204: 1988 Cl. 6.4 (Method C) over the following ranges :	
	20 mm to 120 mm	1.5 mm
- Cube mould	Verification in accordance with in-house method CAL-CUBEMOULD for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A25 Dimensions: 100 mm or 150 mm Flatness: not more than 0.03 mm or 0.06 mm Perpendicularity: 0.5 mm Parallelism: 1 mm	0.03 mm 0.01 mm 0.05 mm 0.20 mm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Construction materials testing equipment (cont'd)		
- Cube mould (cont'd)	On-site verification in accordance with in-house method CAL-CUBEMOULD for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A25 Dimensions: 100 mm or 150 mm Flatness: not more than 0.03 mm or 0.06 mm Perpendicularity: 0.5 mm Parallelism: 1 mm	0.03 mm 0.01 mm 0.05 mm 0.20 mm
- Curing tank	On-site verification for the following parameters in accordance with in-house method CAL-CURTANK for the requirements as specified in CS1: 2010: Vol. 1 App. A28 Temperature distribution at a range of (27 ± 3) °C Efficiency of circulation	0.4 K 0.5 min
- Flow mould for determination of flow of fresh concrete	Verification in accordance with in-house method CAL-FLOWMOULD for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A15.2 Internal diameter of top: 130 mm Internal diameter of base: 200 mm Height: 200 mm Thickness of metal: 1.5 mm	0.4 mm 0.4 mm 0.4 mm 0.1 mm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Construction materials testing equipment (cont'd)		
- Flow table for determination of flow of fresh concrete	Verification in accordance with in-house method CAL-FLOWTABLE for the dimensional and mass requirements as specified in CS1: 2010 Vol. 1 App. A15.1 Dimensions of metal plate: 700 mm x 700 mm Thickness of metal plate: minimum 2 mm Diameter of central circle: 210 mm Fall height: 40 mm Mass: 16 kg	0.6 mm 0.2 mm 0.2 mm 0.2 mm 0.01 kg
- Flow tamping bar for determination of flow of fresh concrete	Verification in accordance with in-house method CAL-FLOWTAMPBAR for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A15.3 Dimensions of square section: 40 mm x 40 mm Length of square section: 200 mm Length of circular handle: 120 mm to 150 mm	0.1 mm 0.5 mm 0.5 mm
- Mixer	On-site calibration for rotation speed of mixing blade and mixing bowl in accordance with in-house method CAL-MIX-SP over the following ranges : 20 rpm to 1000 rpm above 1000 rpm to 2000 rpm	1 rpm 2 rpm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Construction materials testing equipment (cont'd)		
- Rebound hammer	Calibration for rebound value in accordance with in-house method CAL-REBHAM using anvil complying with BS EN 12504-2: 2001 Cl. 4.2; or BS EN 12504-2: 2012 Cl. 4.2; or BS EN 12504-2: 2021 Cl. 5.2	1 rebound count
- Slump cone	Verification in accordance with in-house method CAL-SLUMPCONE for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A5 Internal diameter of base: 200 mm Internal diameter of top: 100 mm Wall thickness: minimum 1.5 mm Height: 300 mm	0.4 mm 0.4 mm 0.1 mm 0.4 mm
- Slump flow base plate	Verification in accordance with in-house method CAL-SFBASEPL for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A16 Plate thickness: minimum 2 mm Deviation from flatness: less than 3 mm Dimensions of plate: minimum 800 mm x 800 mm Diameters of central circles: 200 mm and 500 mm	0.1 mm 0.1 mm 0.6 mm 0.6 mm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Construction materials testing equipment (cont'd)		
- Tamping rod	Verification in accordance with in-house method CAL-TAMPROD for the dimensional requirements as specified in CS1: 2010 Vol. 1 App. A6 Diameter: 16 mm Length: 600 mm	0.2 mm 0.5 mm
- Weld gauge	Calibration in accordance with in-house method CAL-WELDGAUGE for the following parameters :	
	Scale measuring bevel angle: 0° to 90°	1.1°
	Scale measuring fixed bevel angle: 0° to 90°	1.1°
	Ruler: 0.5 mm to 60 mm	0.6 mm
	Scale measuring weld width: 0 mm to 10 mm	0.6 mm
	Scale measuring high low, weld cap and leg length: 0 mm to 50 mm	0.6 mm
	Scale measuring undercut depth: 0 mm to 25 mm	0.6 mm
	Scale measuring weld throat: 0 mm to 20 mm	0.6 mm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Electrical measurements - Time and frequency measuring instruments - Digital stop watch / Timer	Calibration for time in accordance with in-house method CAL-TIMER over the following range : 5 s to 3600 s	60 ms

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements - Angle measuring instruments - Engineer's square - Square with inner length of blade from 10 mm to 270 mm - Square with inner length of blade above 270 mm to 350 mm - Spirit level	Calibration for deviation from squareness in accordance with in-house method CAL-SQUARE over the following ranges : 20 µm to 1000 µm 20 µm to 1000 µm Calibration of angle of tilt in accordance with in-house method CAL-SPLVL-SEN over the following range : 0.1 ° to 1 °	10 µm 20 µm 3.4 minute of arc

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements (cont'd) - Form measuring instruments - Straight edge 10 mm to 1000 mm length	Calibration for deviation from straightness in accordance with in-house method CAL-STREDGE over the following range : -20 µm to 1000 µm	11 µm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements (cont'd)		
- Length measuring instruments		
- Calibration foil	Calibration for thickness in accordance with in-house method CAL-CTG+FOIL over the following ranges :	
	12 µm to 12.5 mm	3 µm to 5 µm
- Calliper (Vernier)	Calibration for length in accordance with BS 887: 2008 App. B.1 for external measurement over the following range :	
	0.5 mm to 305 mm	0.02 mm
- Calliper	Calibration for length in accordance with ISO 13385-1: 2019 cl.5.5, 5.6 and Annex A over the following range :	
	0.5 mm to 305 mm	0.02 mm
- Coating thickness gauge	Calibration for thickness using calibration foils in accordance with in-house method CAL-CTG+FOIL over the following ranges :	
	12 µm to 12.5 mm	6 µm to 70 µm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements (cont'd) - Length measuring instruments - Dial gauge	Calibration for length in accordance with BS 907: 2008 App. B3 using micrometer calibrator over the following range : 0.001 mm to 25 mm Calibration for length in accordance with BS 907: 2008 App. B3 using gauge blocks over the following ranges : 0.1 mm to 50 mm above 50 mm to 100 mm Calibration for length in accordance with BS 907: 2008 App. B3 using micrometer calibrator with gauge blocks over the following range : 0.001 mm to 100 mm	5 µm 6 µm 7 µm 7 µm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements (cont'd)		
- Length measuring instruments (cont'd)		
- Digimatic indicator	Calibration for length in accordance with in-house method CAL-LVDT using micrometer calibrator over the following range : 0.001 mm to 25 mm	2 µm
	Calibration for length in accordance with in-house method CAL-LVDT using gauge blocks over the following ranges :	
	0.1 mm to 50 mm	2 µm
	above 50 mm to 100 mm	3 µm
- Feeler gauge	Calibration for thickness of blade in accordance with in-house method CAL-FEELERG over the following range :	
	0.02 mm to 5 mm	2 µm
- Engineer's steel rule	Calibration for length in accordance with in-house method CAL-STRULE (Method I) over the following range :	
	1 mm to 1 m	0.23 mm
	Calibration for length in accordance with in-house method CAL-STRULE (Method II) over the following range :	
	1 mm to 1 m	0.5 mm
- External micrometer	Calibration for travel length in accordance with BS 870: 2008 App. A.6 over the following range :	
	0.5 mm to 25 mm	2 µm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
<p>Length and related measurements (cont'd)</p> <p>- Length measuring instruments (cont'd)</p> <p>- Extensometer</p> <p>- Grade A with gauge length from 50 mm to 100 mm</p> <p>- Grade B with gauge length from 25 mm to 100 mm</p> <p>- Grade C with gauge length from 12 mm to 100 mm</p> <p>- Grade D with gauge length from 5 mm to 100 mm</p> <p>- Class 0.5, 1 or 2 with gauge length from 5 mm to 100 mm</p>	<p>On-site calibration for displacement using calibration rig in accordance with BS 3846: 1970 over the following range :</p> <p>0 µm to 50 mm</p> <p>On-site calibration for displacement using calibration rig in accordance with BS EN ISO 9513: 2002; or BS EN ISO 9513: 2012 over the following range:</p> <p>0 µm to 50 mm</p>	<p>0.6 µm</p> <p>0.6 µm</p>

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements (cont'd) - Length measuring instruments (cont'd) - Linear displacement indicator	Calibration for length in accordance with in-house method CAL-LVDT using micrometer calibrator over the following range : 0.001 mm to 25 mm Calibration for length in accordance with in-house method CAL-LVDT using gauge blocks over the following ranges : 0.1 mm to 50 mm above 50 mm to 100 mm	2 µm 2 µm 3 µm
- Linear variable displacement transducer (LVDT)	Calibration for length in accordance with in-house method CAL-LVDT using micrometer calibrator over the following range : 0.001 mm to 25 mm Calibration for length in accordance with in-house method CAL-LVDT using gauge block over the following ranges : 0.1 mm to 50 mm above 50 mm to 100 mm	2 µm 2 µm 3 µm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Length and related measurements (cont'd) - Length measuring instruments (cont'd) - Measuring tape	Calibration for length in accordance with in-house method CAL-MTAPE over the following range : 0.1 m to 100 m	0.4 mm to 8.0 mm
- Steel tape	Calibration for length in accordance with in-house method CAL-MTAPE over the following range : 0.1 m to 100 m	0.4 mm to 8.0 mm
- Rotational speed measurements - Tachometer	Calibration for rotational speed in accordance with in-house method CAL-TACHOMETER over the following range: 20 rpm to 1500 rpm	0.02 rpm to 2 rpm

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements		
- Force measurements		
- Compression testing machine	On-site calibration for compressive force using Grade 1.0 load cells and verification for grade in accordance with BS 1610: Part 1: 1985 (Amd. 6175) (constant true force method or indicated force method) over the following range :	
	0.2 kN to 3000 kN	0.3% of reading
- Concrete testing machine	On-site calibration for compressive force using Class 1.0 load cells and verification for class in accordance with BS EN 12390-4: 2000 Annex B; or CS1: 2010 App. D (constant true force method or indicated force method for above two standards) over the following range :	
	0.2 kN to 3000 kN	0.3% of reading
	On-site calibration for strain ratio by performing strain gauged column and proving test (stability test) in accordance with CS1 : 2010 App. D; BS EN 12390-4: 2000 Table 3 and Annex A; or BS EN 12390-4: 2019 Table 1 and Annex A over the following range of compressive force:	
	200 kN to 2000 kN	0.03 strain ratio
- Force measuring device (compression)	Calibration for compressive force in accordance with in-house method CAL-LOADCELL over the following ranges :	
	0.2 kN to 2 kN	0.3% of reading
	above 2 kN to 10 kN	0.5% of reading
	above 10 kN to 2000 kN	0.3% of reading

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements (cont'd)		
- Force measurements (cont'd)		
- Impact testing machine	On-site indirect calibration for energy absorbed by breaking of Charpy V reference test piece in accordance with BS EN 10045-2: 1993 Cl. 6; or BS EN ISO 148-2: 2016 Cl. 7 over the following ranges :	1.7 J at 21.1 J 11 J at 209 J
- Pull-off tester	Calibration for lifting force in accordance with in-house method CAL-POTESTER over the following ranges :	5.6 N 10 N to 100 N
- Static uniaxial testing machine (compression mode)	On-site calibration for compressive force using Class 1.0 load cells and verification for class in accordance with BS EN ISO 7500-1: 2018; or BS EN ISO 7500-1: 2004 (Cor.1: 2008) (constant true force method or indicated force method for above two standards) over the following range :	0.3% of reading

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements (cont'd) - Force measurements (cont'd) - Static uniaxial testing machine (tension mode)	On-site calibration for tension force using Class 1.0 load cells and verification for class in accordance with BS EN ISO 7500-1: 2018; or BS EN ISO 7500-1: 2004 (Cor.1: 2008) (constant true force method or indicated force method for above two standards) over the following range : 0.2 kN to 0.8 kN above 0.8 kN to 2 kN	0.6% of reading 0.3% of reading
- Universal testing machine (compression mode)	On-site calibration for compressive force using Class 1.0 load cells and verification for class in accordance with BS 1610: Part 1: 1985 (Amd. 6175); BS EN 12390-4: 2000 Annex B; or CS1: 2010 App. D (constant true force method or indicated force method for above three standards) over the following range : 0.2 kN to 3000 kN	0.3% of reading

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements (cont'd) - Balance	<p>Calibration for mass using following OIML Class standard weights (1) E2 weights from 1 mg to 1 g (2) E2 weights from 1 g to 200 g (3) F1 weights from 1 g to 60 kg in accordance with in-house method CAL-BALANCE over the following ranges :</p> <p>1 mg to 1 g above 1 g to 1 kg above 1 kg to 6 kg above 6 kg to 60 kg</p> <p>On-site calibration for mass using following OIML Class standard weights (1) E2 weights from 1 mg to 1 g (2) E2 weights from 1 g to 200 g (3) F1 weights from 1 g to 60 kg in accordance with in-house method CAL-BALANCE over the following ranges :</p> <p>1 mg to 1 g above 1 g to 1 kg above 1 kg to 6 kg above 6 kg to 60 kg</p>	<p>0.1 mg 0.1 mg to 1.7 mg 7 mg to 11 mg 0.07 g to 0.29 g</p> <p>0.1 mg 0.1 mg to 1.7 mg 7 mg to 11 mg 0.07 g to 0.29 g</p>

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements (cont'd)		
- Weight (Standard values)	Calibration for mass by comparison with reference mass in accordance with in-house method CAL-WEIGHT at the following specific nominal values :	
	1 mg	0.2 mg
	2 mg	0.2 mg
	5 mg	0.2 mg
	10 mg	0.2 mg
	20 mg	0.2 mg
	50 mg	0.2 mg
	100 mg	0.2 mg
	200 mg	0.2 mg
	500 mg	0.2 mg
	1 g	0.2 mg
	2 g	0.2 mg
	5 g	0.2 mg
	10 g	0.2 mg
	20 g	0.2 mg
	50 g	0.2 mg
	100 g	0.2 mg
	200 g	0.2 mg
	500 g	2 mg
	1 kg	2 mg
	2 kg	10 mg
	5 kg	20 mg
	10 kg	2 g
	20 kg	2 g
	50 kg	2 g
- Weight (Non-standard values)	Calibration for mass by comparison with reference mass in accordance with in-house method CAL-WEIGHT over the following ranges :	
	1 mg to 200 g	0.2 mg to 0.8 mg
	above 200 g to 1 kg	1.0 mg to 4 mg
	above 1 kg to 6.2 kg	10 mg to 20 mg
	above 6.2 kg to 60 kg	2 g to 4 g

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements (cont'd) - Hardness measurements - Hardness testing machine	On-site indirect verification for testing machine for Vickers hardness scales in accordance with BS EN ISO 6507-2: 2018 cl. 6; or ISO 6507-2: 2005 cl. 5 over the following ranges : 100 HV 5 to 700 HV 5 100 HV 10 to 700 HV 10 100 HV 30 to 900 HV 30	2.8 % HV 5 1.5 % HV 10 1.2 % HV 30

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Mass and related measurements (cont'd)		
- Volume measurements		
- Volumetric glassware		
- Cylinder	Calibration for volume in accordance with in-house method CAL-VOL-LBW using the tables in BS EN ISO 4787: 2011 for temperature correction over the following ranges :	
	10 ml to 50 ml	0.23 ml
	above 50 ml to 100 ml	0.33 ml
	above 100 ml to 500 ml	1.1 ml
	above 500 ml to 1000 ml	1.8 ml
- Volumetric flask	Calibration of volume in accordance with in-house method CAL-VOL-LBW using the tables in BS EN ISO 4787: 2011 for temperature correction over the following ranges :	
	10 ml to 50 ml	0.12 ml
	above 50 ml to 100 ml	0.17 ml
	above 100 ml to 500 ml	0.6 ml
	above 500 ml to 1000 ml	0.9 ml
- Volumetric plasticware	Calibration for contained capacity in accordance with in-house method CAL-VOL-LBW over the following ranges	
	10 ml to 50 ml	0.12 ml
	above 50 ml to 100 ml	0.17 ml
	above 100 ml to 500 ml	0.6 ml
	above 500 ml to 1000 ml	0.9 ml

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat G, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 G 室

Calibration Services 校正服務		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED® 特定測試或量度的特性®	CALIBRATION AND MEASUREMENT CAPABILITY (CMC)* 校準和測量能力*
Temperature measurements		
- Dial / analogue thermometer	Calibration for temperature in accordance with in-house method CAL-THERMOMETER over the following ranges :	
	-40 °C to 130 °C	0.5 K
	above 130 °C to 320 °C	1.0 K
- Digital thermometer	Calibration of temperature in accordance with in-house method CAL-THERMOMETER over the following ranges :	
	-40 °C to 130 °C	0.3 K
	above 130 °C to 320 °C	0.7 K
- Liquid-in-glass thermometer (LIGT)	Calibration of temperature in accordance with in-house method CAL-THERMOMETER over the following ranges :	
	10 °C to 80 °C	0.3 K
- Temperature recorder with sensor	Calibration of temperature in accordance with in-house method CAL-THERMOMETER over the following ranges :	
	10 °C to 80 °C	0.5 K
- Digital thermometer with thermocouple	Calibration of temperature in accordance with in-house method CAL-THERMOMETER over the following ranges :	
	-40 °C to 130 °C	0.3 K
	above 130 °C to 320 °C	0.7 K

® Unless otherwise specified, accredited activities are conducted at the laboratory.

* The calibration uncertainty of a device under test, which is usually reported at 95% confidence level, depends on both the CMC of the laboratory and the performance of the device during calibration.

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Adhesive	Pull-off test of repair mortar Pull-off test of tiles	BS 1881: Part 207: 1992 Cl. 8 In-house method BD-MORTAR-POT Hong Kong Housing Authority Specification Library (2018) FIN5.TI50.8 Hong Kong Housing Authority Specification Library (2022) FIN5.TI50.9
Coating	Pull-off test of adhesion	ASTM D4541-02 Test Method A ASTM D7234-05
Concrete (diagnostic)	Carbonation test Covermeter survey Half-cell potential measurement Infrared thermography for detection of building surface defects Resistivity measurement Surface hardness measurement Ultrasonic pulse velocity measurement	BS EN 14630: 2006 Building Research Establishment Information Paper IP 6/81 Hong Kong Housing Authority Materials Testing Services (2024/2027) for Maintenance & Building Materials Specification Part D Cl. 4.3.1 (Method 2) BS 1881: Part 204: 1988 + Amd. 6201 Cl. 7.3 ASTM C876-09 (Method A & B for pre-wetting) Hong Kong Concrete Institute TM1 Issue 2 (2022) + Amd. No. 1/2024 BS 1881: Part 201: 1986 Cl. 2.3 BS 1881: Part 202: 1986 BS EN 12504-2: 2021 BS EN 12504-4: 2004

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Foundation	Crosshole sonic logging test (SOLT)	ASTM D6760-14 ASTM D6760-16
	Pile integrity test (PIT)	ASTM D5882-16
	Pile dynamic test (PDA)	ASTM D4945-12 ASTM D4945-17
	Single hole sonic logging test (SOLT)	ASTM D6760-14 ASTM D6760-16
	Ultrasonic echo sounder test (UEST)	Hong Kong Concrete Institute TM3 Issue 2 (2024)
Foundation (geotechnical monitoring)	Inclination monitoring by inclinometer	In-house method FPT-IH-IM
	Monitoring ground movement using probe-type inclinometers	ASTM D6230-13
	Verticality check using inclinometer	In-house method FPT-IH-VC
	Vibration monitoring	In-house method FPT-IH-VIB
Metallic materials (non-destructive)	Ultrasonic test of H beams with parallel flanges and IPE beams (manual method)	BS EN 10306: 2002
	Ultrasonic test of steel flat product of thickness equal to or greater than 6 mm (reflection method)	BS EN 10160: 1999
Paint & varnish	Dry-film coating thickness	BS EN ISO 2808: 2007, BS 3900-C5: 2007 Method 6B (Wedge cut) Method 7C (Magnetic-induction) Method 7D (Eddy-current)
	Pull-off test of adhesion	BS EN ISO 4624: 2003, BS 3900-E10: 2003 Cl. 9.4.2
Rock	Point load strength index of rock by diametral and axial tests	ASTM D5731-16 International Society for Rock Mechanics (1985) Suggested method for determining point load strength

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Structural fixings	<p>Tensile proof load test of anchors, dowel bars, and channel inserts by incremental loading in the force range 1 kN – 600 kN</p> <p>Tensile proof load test of drilled-in anchors used for cantilevered structure/hanger/curtain wall remedial works by incremental loading in the force range 1 kN – 600 kN</p> <p>Tensile proof load test of drilled-in anchors used for works other than cantilevered structure/hanger/curtain wall remedial works in the force range 1 kN – 600 kN</p> <p>Tensile proof load test for cementitious or polymer based grouted bolts or dowels or reinforcing bars works or/and steel T-bolts with cast-in channels in the force range 1 kN – 600 kN</p> <p>Shear proof load test of anchors, dowel bars, and channel inserts by incremental loading in the force range 1 kN – 600 kN</p> <p>Shear proof load test of drilled-in anchors used for cantilevered structure/hanger/curtain wall remedial works by incremental loading in the force range 1 kN – 600 kN</p> <p>Shear proof load test of drilled-in anchors used for works other than cantilevered structure/hanger/curtain wall remedial works in the force range 1 kN – 600 kN</p> <p>Shear proof load test for cementitious or polymer based grouted bolts or dowels or reinforcing bars works or/and steel T-bolts with cast-in channels in the force range 1 kN – 600 kN</p>	<p>BS 5080: Part 1: 1993 Cl. 6, 7.1.1 & 7.1.3 with modifications</p> <p>Buildings Department PNAP APP-169 (Oct 2023) App. A</p> <p>Buildings Department PNAP APP-169 (Oct 2023) App. B</p> <p>Buildings Department PNAP APP-169 (Oct 2023) App. C</p> <p>BS 5080: Part 2: 1986 Cl. 7.1, 7.2.1 & 7.2.3 with modifications</p> <p>Buildings Department PNAP APP-169 (Oct 2023) App. A</p> <p>Buildings Department PNAP APP-169 (Oct 2023) App. B</p> <p>Buildings Department PNAP APP-169 (Oct 2023) App. C</p>

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Welds (non-destructive)	<p>Liquid penetrant test (Colour contrast method)</p> <p>Magnetic particle test (Magnetic flow method colour contrast technique using permanent magnets, A.C. & D.C. yokes)</p>	<p>BS 6443: 1984 BS EN 571-1: 1997 BS EN ISO 3452-1: 2013 in conjunction with the following specification(s): BS 5135: 1984 Table 18 & 19 BS EN ISO 5817: 2014 Table 1 Buildings Department Code of Practice for the Structural Use of Steel (2011) Table 14.3b Buildings Department Code of Practice for the Structural Use of Steel (2011) (2023 Ed.) Table 14.3b Hong Kong International Airport General Material & Workmanship Specification (GMWS) Issue No. 5b (2019) Vol. 1 – Civil & Structural Works Section 22.6.22</p> <p>BS 6072: 1981 BS EN 1290: 1998 BS EN ISO 9934-1: 2001 BS EN ISO 9934-1: 2016 BS EN ISO 17638: 2009 BS EN ISO 17638: 2016 in conjunction with the following specification(s): BS 4515: Part 1: 2009 Table 9 BS 5135: 1984 Table 18 & 19 BS EN ISO 5817: 2014 Table 1 BS EN ISO 23278: 2015 Table 1 Buildings Department Code of Practice for the Structural Use of Steel (2011) Table 14.3b Buildings Department Code of Practice for the Structural Use of Steel (2011) (2023 Ed.) Table 14.3b Hong Kong International Airport General Material & Workmanship Specification (GMWS) Issue No. 5b (2019) Vol. 1 – Civil & Structural Works Section 22.6.22</p>

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
<p>Welds (non-destructive) (cont'd)</p>	<p>Ultrasonic test (Butt welds in plates and pipes, 'T' joint welds, nozzle welds & node welds)</p> <p>Visual examination</p>	<p>BS 3923: Part 1: 1986 (Level 1, 2A, 2B & 3) BS EN 1714: 1998 (Level A, B, & C) BS EN ISO 17640: 2010 (Level A, B, & C) BS EN ISO 17640: 2018 (Level A, B, & C) in conjunction with the following specification(s): BS 5135: 1984 Table 18 & 19 BS EN ISO 5817: 2014 Table 1 Buildings Department Code of Practice for the Structural Use of Steel (2011) Table 14.3b Buildings Department Code of Practice for the Structural Use of Steel (2011) (2023 Ed.) Table 14.3b Hong Kong International Airport General Material & Workmanship Specification (GMWS) Issue No. 5b (2019) Vol. 1 – Civil & Structural Works Section 22.6.22</p> <p>BS 5289: 1976 BS EN 970: 1997 BS EN ISO 17637: 2011 BS EN ISO 17637: 2016 in conjunction with the following specification(s): BS 4515: Part 1: 2009 Table 9 BS 5135: 1984 Table 18 & 19 BS EN ISO 5817: 2014 Table 1 BS EN ISO 14555: 2017 Table A.5 & A.6 Buildings Department Code of Practice for the Structural Use of Steel (2011) Table 14.3b Buildings Department Code of Practice for the Structural Use of Steel (2011) (2023 Ed.) Table 14.3b Hong Kong International Airport General Material & Workmanship Specification (GMWS) Issue No. 5b (2019) Vol. 1 – Civil & Structural Works Section 22.6.22</p>

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E & F, 9/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 9 樓 E 及 F 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
<p>Welds (non-destructive) (cont'd)</p>	<p>Visual examination and bend test on stud connectors</p>	<p><Visual examination as follows:> BS 5289: 1976 BS EN 970: 1997 BS EN ISO 17637: 2011 BS EN ISO 17637: 2016 <together with the following bend test method(s):> BS EN ISO 14555: 2017 Cl. 11.2, 11.3 (excluding Torque wrench method), 12.2 & 12.3 Buildings Department Code of Practice for the Structural Use of Steel (2011) Cl. 14.3.7.3 Buildings Department Code of Practice for the Structural Use of Steel (2011) (2023 Ed.) Cl. 14.3.7.3</p>

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Blocks and bricks	Bending strength of paving flags	BS 7263-1: 2001 Annex E
	Bending strength and breaking load of paving flags	BS EN 1339: 2003 + Corr. 1: 2006 Annex F
	Compressive strength of interlocking blocks	Hong Kong Housing Authority Specification Library (2018) EXT3.T120.8 – EXT3.T150.8 Hong Kong Housing Authority Specification Library (2022) EXT3.T120.9 – EXT3.T150.9
	Compressive strength of paving blocks	General Specification for Civil Engineering Works (2006) Vol. 1 App. 11.1 General Specification for Civil Engineering Works (2020) Vol. 1 App. 11.1
	Dimensions of clay and calcium silicate pavers	BS 6677: Part 1: 1986 App. C
	Dimension of clay pavers	BS EN 1344: 2002 Annex B
	Dimensions of natural stone setts	BS EN 1342: 2001 Annex A
	Dimensions of natural stone slabs	BS EN 1341: 2001 Annex A
	Dimensions of paving blocks	BS 6717: 2001 Annex B BS EN 1338: 2003 + Corr. 1: 2006 Annex C
	Dimensions of paving flags	BS 7263-1: 2001 Annex B BS EN 1339: 2003 + Corr. 1: 2006 Annex C
	Flexural strength of natural stone slabs	BS EN 1341: 2001 Cl. 4.3 BS EN 12372: 2006
	Transverse breaking load of clay and calcium silicate pavers	BS 6677: Part 1: 1986 App. D
	Transverse breaking load of clay pavers	BS EN 1344: 2002 Annex D

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Blocks and bricks (cont'd)	Unpolished slip resistance value of natural stone setts	BS EN 1342: 2001 Annex C
	Unpolished slip resistance value of natural stone slabs	BS EN 1341: 2001 Annex D
	Unpolished slip/skid resistance value of clay pavers	BS EN 1344: 2002 Annex F
	Water absorption of masonry units, segmental pavers and flags (Cold water 24-hour immersion test)	AS/NZS 4456.14: 2003 + Amd. 1 & 2
Dimension stones	Absorption and bulk specific gravity	ASTM C97-02
	Compressive strength	ASTM C170-06
	Flexural strength	ASTM C880/C880M-09
	Strength of individual anchorages	ASTM C1354-96 (Reapproved 2004)

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Concrete	Sample fresh concrete on site	CS1: 2010 Section 1
	Slump of fresh concrete	CS1: 2010 Section 2 Part I
	Flow table test	CS1: 2010 Section 2 Part IV
	Slump flow test	CS1: 2010 Section 2 Part V
	Stiffening time of fresh concrete	CS1: 2010 Section 3
	Density of compacted fresh concrete	CS1: 2010 Section 5
	Making test cubes from fresh concrete	CS1: 2010 Section 7
	Making test cylinders from fresh concrete	CS1: 2010 Section 9
	Curing test specimens	CS1: 2010 Section 10
	Compressive strength of concrete cubes in the force range 10 kN – 3000 kN	CS1: 2010 Section 12
	Obtaining core samples	CS1: 2010 Section 15
	Compressive strength of concrete cores in the force range 10 kN – 3000 kN	CS1: 2010 Section 15
	Density of hardened concrete	CS1: 2010 Section 16
	Concrete's ability to resist chloride ion penetration	AASHTO T277-07 ASTM C1202-05 ASTM C1202-12 CS1: 2010 Section 19
	Bleeding test	ASTM C232 / C232M-09 Method A
	Removal of concrete cover for reinforcement survey	Hong Kong Housing Authority Materials Testing Services (2024/2027) for Maintenance and Building Materials Specification Part D Cl. 4.2.1
Temperature	BS 8500-2 2006 Cl. 5.4b	
Water absorption	BS 1881: Part 122: 1983	

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Grout	Bleeding and free expansion	General Specification for Civil Engineering Works (2006) Cl. 17.60 Hong Kong Housing Authority Specification Library (2018) PIL1.T320.8 Hong Kong Housing Authority Specification Library (2022) PIL1.T320.9
	Flow of grout for preplaced-aggregate concrete	ASTM C939-02 (flow cone method) ASTM C939/C393M-16a
Manhole covers / steps	Loading test of gully tops and manhole tops	BS EN 124-1: 2015 Cl. 7.2, 7.3, 8.1, 8.2 & 8.3, Annex A & B
	Mass determination and loading test of manhole covers, gully gratings and kerb overflow weirs	Hong Kong Housing Authority Specification Library (2022) DRA2.M650.9 & DRA2.T430.9 to DRA2.T490.9 General Specification for Civil Engineering Works (2006) Cl. 5.95 & App. 5.3 General Specification for Civil Engineering Works (2020) Cl. 5.95 & App. 5.3
Metallic materials	Bend test of carbon steel bars	CS2: 1995 Cl. 6.1 & 6.3
	Bend test of metallic materials	BS EN ISO 7438: 2016
	Bend test of reinforcing bars, wire rods and wires for reinforcement of concrete	BS EN ISO 15630-1: 2010 Cl. 6 BS EN ISO 15630-1: 2019 Cl. 6
	Bend test on welded intersection of welded fabric for concrete	BS EN ISO 15630-2: 2019 Cl. 6
	Bond property of steel reinforcing bars by surface geometry measurement	BS EN ISO 15630-1: 2010 Cl. 10, 11.2 & 11.3 BS EN ISO 15630-1: 2019 Cl. 10, 11.2 & 11.3 CS2: 2012 (Rev. 6) Cl. 6.1 & 6.7.2 in conjunction with the following specification(s): BS 4449: 2005 + A2: 2009 + A3: 2016 Cl. 7.4 & 9

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong
香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Metallic materials (cont'd)	Charpy V-notch and U-notch impact test	BS EN 10045-1: 1990 BS EN ISO 148-1: 2016 in conjunction with the following specification(s): BS EN 1562: 2019 Cl. 9.4 & Table 3 BS EN 1563: 2018 Cl. 9.2 & Table 2 BS EN 10025-1: 2004 Cl. 10.2.2 BS EN 10025-2: 2004 Cl. 10.2 & Table 9 BS EN 10025-2: 2019 Cl. 10.2.2 & Table 8 BS EN 10025-3: 2004 Cl. 10.2, Table 6 & 7 BS EN 10025-3: 2019 Cl. 10.2.2, Table 5 & 6 BS EN 10025-4: 2004 Cl. 10.2, Table 6 & 7 BS EN 10025-4: 2019 Cl. 10.2.2, Table 5 & 6 BS EN 10025-5: 2004 Cl. 10.2 & Table 5 BS EN 10025-5: 2019 Cl. 10.2.2 & Table 5 BS EN 10025-6: 2004 + A1: 2009 Cl. 10.2, Table 6 & 7 BS EN 10025-6: 2019 Cl. 10.2.2, Table 5 & 6 BS EN 10088-2: 2005 Cl. 7.4.4 & Table 8, 10 & 11 BS EN 10088-2: 2014 Cl. 7.4.4 & Table 7, 8, 10 BS EN 10088-3: 2005 Cl. 7.4.4 & Table 9 to 12 & 14 – 17 BS EN 10088-3: 2014 Cl. 7.4.4 & Table 8, 9, 11 to 14, 16 & 17 BS EN 10210-1: 2006 Cl. 6.6.2, 9.2.3, Table A.3 & B.3 BS EN 10219-1: 2006 Cl. 6.7.2, 9.2.3, Table A.3, B.4 & B.5 BS EN ISO 898-1: 2009 Cl. 9.14.5 & Table 3 BS EN ISO 898-1: 2013 Cl. 9.14.5 & Table 3
	Mass per meter of steel reinforcing bars, wire rods and wires	BS 4449: 2005 + A2: 2009 + A3: 2016 Cl. 7.3 BS EN ISO 15630-1: 2010 Cl. 12 BS EN ISO 15630-1: 2019 Cl. 12 CS2: 2012 (Rev. 6) Cl. 6.1 & 6.2
	Mass per metre square, pitch and dimension of steel fabric for reinforcement of concrete	BS 4483: 2005 Cl. 7.3, 8.1.3.2 with BS 4449: 2005 + A2: 2009 Cl. 7.3 & BS EN ISO 15630-1: 2002 Cl. 12
	Proof load test of metallic covers in the force range 2.2 kN – 2900 kN	Buildings Department Code of Practice for the Structural Use of Steel (2005) Cl. 16.2.1 Buildings Department Code of Practice for the Structural Use of Steel (2011) Cl. 16.2.1

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Metallic materials (cont'd)	<p>Proof load test of nut in the force range 0.2 kN – 2900 kN</p> <p>Proof load test of stainless steel nut in the force range 0.2 kN – 2900 kN</p> <p>Rebend test of carbon steel bars</p> <p>Rebend test of reinforcing bars, wire rods, welded fabrics or cold reduced wires for reinforcement of concrete</p> <p>Tensile test of carbon steel bars in the force range 0.2 kN – 2900 kN</p> <p>Tensile test of machined bolts and screws in the force range 0.2 kN – 2900 kN</p> <p>Tensile test of unmachined (finished) bolts and screws in the force range 0.2 kN – 2900 kN</p> <p>Proof load test of unmachined (finished) bolts and screws in the force range 0.2 kN – 2900 kN</p>	<p>BS 3692: 2014 Annex C.1 BS 4190: 2014 Annex A.1 BS EN ISO 898-2: 2012 Cl. 9.1</p> <p>BS EN ISO 898-2: 2012 Cl. 9.1 in conjunction with the following specification(s): BS EN ISO 3506-2: 2009 Cl. 6 BS EN ISO 3506-2: 2020 Cl.10.1</p> <p>CS2: 1995 Cl. 6.1 & 6.4</p> <p>CS2: 2012 (Rev. 6) Cl. 6.1 & 6.5 BS EN ISO 15630-1: 2010 Cl. 7 BS EN ISO 15630-1: 2019 Cl. 7 in conjunction with the following specification(s) BS 4449: 1997 Cl. 11.3 & App. E.1.6 BS 4449: 2005 + A2: 2009 + A3: 2016 Cl. 7.2.5 BS 4483: 2005 Cl. 7.2.5 & 8.1.3.2</p> <p>CS2: 1995 Cl. 6.1 & 6.2</p> <p>BS EN ISO 6892-1: 2009 Cl. 10.4 Method B BS EN ISO 6892-1: 2016 Cl. 10.3.3 Method B BS EN ISO 6892-1: 2019 Cl. 10.3.3 Method B in conjunction with the following specification(s): BS EN ISO 898-1: 2009 Cl. 9.7 BS EN ISO 898-1: 2013 Cl. 9.7 BS 3692: 2014 Cl. 14 & 21 BS 4190: 2014 Cl. 15 & 21</p> <p>BS EN ISO 6892-1: 2009 Cl. 10.4 Method B BS EN ISO 6892-1: 2016 Cl. 10.3.3 Method B BS EN ISO 6892-1: 2019 Cl. 10.3.3 Method B in conjunction with the following specification(s): BS EN ISO 898-1: 2009 Cl. 9.2 BS EN ISO 898-1: 2013 Cl. 9.2 BS 3692: 2014 Cl. 14 & 21 BS 4190: 2014 Cl. 15 & 21</p> <p>BS EN ISO 898-1: 2009 Cl. 9.6 BS EN ISO 898-1: 2013 Cl. 9.6 in conjunction with the following specification(s): BS 3692: 2014 Cl. 14 & 21 BS 4190: 2014 Cl. 15 & 21</p>

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Metallic materials (cont'd)	Tensile test of metallic materials in the force range 0.2 kN – 2900 kN	BS EN 10002-1: 2001 BS EN ISO 6892-1: 2009 Cl. 10.4 method B BS EN ISO 6892-1: 2016 Cl. 10.3.3 method B BS EN ISO 6892-1: 2019 Cl. 10.3.3 method B in conjunction with the following specification(s): BS EN 1561: 1997 Cl. 9.1 & Table 1 BS EN 1561: 2011 Cl. 9.1 & Table 1 BS EN 1562: 2019 Cl. 9.1 & 9.2 Table 1 - 3 BS EN 1563: 2018 Cl. 9.1 & Table 1 & 3 BS EN 10025-1: 2004 Cl. 7.3.1, 9.2.3.2 & 10.2.1 BS EN 10025-2: 2004 Cl. 10.2, Table 7 & 8 BS EN 10025-2: 2019 Cl.10.2.1, Table 6 & 7 BS EN 10025-3: 2004 Cl. 10.2 & Table 5 BS EN 10025-3: 2019 Cl. 10.2.1, Table 4 BS EN 10025-4: 2004 Cl. 10.2 & Table 5 BS EN 10025-4: 2019 Cl. 10.2.1, Table 4 BS EN 10025-5: 2004 Cl. 10.2 & Table 4 BS EN 10025-5: 2019 Cl. 10.2.1, Table 4 BS EN 10025-6: 2004 + A1: 2009 Cl. 10.2, Table 5 BS EN 10025-6: 2019 Cl. 10.2.1, Table 4 BS EN 10088-2: 2005 Cl. 7.4.2, Table 7 - 11 & Table 17 – 20 BS EN 10088-2: 2014 Cl. 7.4.2 & Table 11 & 17-20 BS EN 10088-3: 2005 Cl. 7.4.2 & Table 8 – 19 & 25 BS EN 10088-3: 2014 Cl. 7.4.2 & Table 8 - 19 & 25 BS EN 10164: 2004 Cl. 5.1 & 8.1 BS EN 10164: 2018 Cl. 6 & 9.1 BS EN 10210-1: 2006 Cl. 6.6.1, 9.2.1 & 9.2.2 BS EN 10219-1: 2006 Cl. 6.7.1, 9.2.1 & 9.2.2 BS EN 10248-1: 1996 Cl. 8.4.4 & Table 2 BS EN 10248-1: 2023 Cl. 10.2 & Table 3 BS EN 10255: 2004 + A1: 2007 Cl. 9.3 & Table 1

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Metallic materials (cont'd)	<p>Tensile test of reinforcing bars, wire rod, welded fabric or cold reduced wire for reinforcement of concrete in the force range 0.2 kN – 2900 kN</p> <p>Tensile test & slip/permanent elongation test of mechanical coupler in the force range 0.2 kN – 2900 kN</p> <p>Vickers hardness test of metallic materials in scale range of HV0.01 to HV50</p>	<p>BS EN 10002-1: 2001 BS EN ISO 6892-1: 2009 Cl. 10.4 Method B BS EN ISO 6892-1: 2016 Cl. 10.3.3 Method B BS EN ISO 6892-1: 2019 Cl. 10.3.3 Method B in conjunction with the following specification(s) BS 4449: 1997 Cl. 11.1 & 11.2 BS 4449: 2005 + A2: 2009 + A3: 2016 Cl. 7.2.2, 7.2.3, 8.1.3.1 & 9 BS 4483: 2005 Cl. 7.2.2, 7.2.3, 8.1.3.1 & 9 BS EN ISO 15630-1: 2010 Cl. 5 BS EN ISO 15630-1: 2019 Cl. 5 BS EN ISO 15630-2: 2010 Cl. 5 BS EN ISO 15630-2: 2019 Cl. 5 CS2: 2012 (Rev. 6) Cl. 6.1 & 6.4</p> <p>BS EN ISO 6892-1: 2009 Cl. 10.4 method B & In-house method ST-COUPLER-SLIP BS EN ISO 6892-1: 2016 Cl. 10.3.3 method B & In-house method ST-COUPLER-SLIP BS EN ISO 6892-1: 2019 Cl. 10.3.3 method B & In-house method ST-COUPLER-SLIP in conjunction with the following specification(s): BS 8110: Part 1: 1997 Cl. 3.12.8.16.2 Buildings Department Code of Practice for the Structural Use of Concrete (2004) Cl. 3.2.8.2 Buildings Department Code of Practice for the Structural Use of Concrete (2013) Cl. 3.2.8.3</p> <p>BS EN ISO 6507-1: 2005 BS EN ISO 6507-1: 2018 in conjunction with the following specification(s): BS 3692: 2001 Cl. C.4.3 & Table 9 BS 3692: 2014 Cl. C.4.4 & Table 10 BS 4190: 2001 Cl. A.2.4 & Table 14 BS 4190: 2014 Cl. A4.4 & Table 14 BS EN 10088-2: 2005 Cl. 7.4.5 & Table 8 BS EN 10088-2: 2014 Cl. 7.4.5 & Table 10 BS EN ISO 898-1: 2009 Cl. 9.9.3(a) & Table 3 BS EN ISO 898-1: 2013 Cl. 9.9.3(a) & Table 3 BS EN ISO 898-2: 2012 Cl. 9.2.2 & Table 6 BS EN ISO 3506-1: 2009 Cl. 7.2.7 & Table 3</p>

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Metallic materials (cont'd)	Vickers hardness test of metallic materials in scale range of HV1 to HV50	BS EN 23878: 1993 ISO 3878: 1983
Structural fixings	Weld shear force test on steel fabric for reinforcement of concrete in the force range 0.2 kN – 2900 kN	BS EN ISO 15630-2: 2019 Cl. 7 in conjunction with the following specification(s): BS 4483: 2005 Cl. 7.2.2 & 7.2.4
Structural fixings	Proof load test of spiders in the force range 2.2 kN – 2900 kN	Buildings Department Code of Practice for the Structural Use of Steel (2005) Cl. 16.2.1 Buildings Department Code of Practice for the Structural Use of Steel (2011) Cl. 16.2.1
Welds (destructive)	Bend test on welds in metallic materials	BS EN 910: 1996 BS EN ISO 5173: 2010 + A1: 2011
Welds (destructive)	Bend test on welded reinforcement steel for concrete	BS EN ISO 17660-1: 2006 Cl. 14.4
Welds (destructive)	Fracture test on welds in metallic materials	BS EN 1320: 1997 BS EN ISO 9017: 2013
Welds (destructive)	Impact test on welds in metallic materials using V-notch and U-notch test pieces	BS EN 875: 1995 BS EN ISO 9016: 2011
Welds (destructive)	Longitudinal tensile test on weld metal in fusion welded joints in the force range 0.2 kN – 2900 kN	BS EN 876: 1995 BS EN ISO 5178: 2011
Welds (destructive)	Micro hardness test on welds in metallic materials in the scale of HV 0.1 to HV1	BS EN 1043-2: 1997 BS EN ISO 9015-2: 2011
Welds (destructive)	Macroscopic and microscopic examination on welds in metallic materials	BS EN 1321: 1997 BS EN ISO 17639: 2013
Welds (destructive)	Macro-etch test on welded reinforcement steel for concrete	BS 7123: 1989 Cl. 12.3.6
Welds (destructive)	Macro examination of arc stud weld	BS EN ISO 14555: 2017 Cl. 11.6

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Workshop 3, 1/F, Wah Wai Centre, 38-40 Au Pui Wan Street, Fo Tan, New Territories, Hong Kong

香港新界火炭坳背灣街 38-40 號華衛工貿中心 1 樓 3 號舖

Construction Materials 建築材料		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Welds (destructive) (cont'd)	Shear test on welded reinforcement steel for concrete in the force range 0.2 kN – 2900 kN	BS EN ISO 17660-1: 2006 Cl. 14.3
	Tensile test on welded reinforcement steel for concrete in the force range 0.2 kN – 2900 kN	BS EN ISO 17660-1: 2006 Cl. 14.2
	Transverse tensile test on weld in metallic materials in the force range 0.2 kN – 2900 kN	BS EN 895: 1995 BS EN ISO 4136: 2011 BS EN ISO 4136: 2012
	Tensile test on welded reinforcement steel for concrete in the force range 0.2 kN – 2900 kN	BS 7123: 1989 Cl. 12.3.5
	Tensile test of arc stud weld	BS EN ISO 14555: 2017 Cl. 11.4
	Vickers hardness test on welds in metallic materials in the scale of HV5 and HV10	BS EN 1043-1: 1996 BS EN ISO 9015-1: 2011

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Admixture (chemical analysis)	Conventional dry material content	BS EN 934-1: 2008 Cl. 4 & BS EN 480-8: 2012 BS EN 480-8: 1997
	pH of liquid admixture	BS EN 934-1: 2008 Cl. 4 & ISO 4316: 1977
	Density of liquid admixture	ISO 758: 1976
	Water-soluble chloride content	BS EN 934-1: 2008 Cl. 4 & BS EN 480-10: 2009 (Method 3)
	Sodium oxide content	BS EN 480-12: 1998 BS EN 480-12: 2005
	Potassium oxide content	BS EN 480-12: 1998 BS EN 480-12: 2005
	Alkali content	BS EN 934-1: 2008 Cl. 4 & BS EN 480-12: 2005 BS EN 480-12: 1998
Cement (chemical analysis)	Loss-on-ignition (L.O.I.)	BS EN 196-2: 2005 Cl. 7 BS EN 196-2: 2013 Cl. 4.4.1
	Chloride ion content (Cl ⁻)	BS EN 196-2: 2005 Cl. 14 BS EN 196-2: 2013 Cl. 4.5.16
	Sulphate content (as SO ₃)	BS EN 196-2: 2005 Cl. 8 BS EN 196-2: 2013 Cl. 4.4.2
	Residue insoluble in hydrochloric acid and sodium carbonate	BS EN 196-2: 2005 Cl. 9 BS EN 196-2: 2013 Cl. 4.4.3
	Alkali content	BS EN 196-2: 2005 Cl. 17 (Reference Method) BS EN 196-2: 2013 Cl. 4.5.19 (Reference Method)
	Sodium oxide content	BS EN 196-2: 2005 Cl. 17 (Reference Method) BS EN 196-2: 2013 Cl. 4.5.19 (Reference Method)
	Potassium oxide content	BS EN 196-2: 2005 Cl. 17 (Reference Method) BS EN 196-2: 2013 Cl. 4.5.19 (Reference Method)

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Coating	Mass per unit area of hot dip galvanized coating by gravimetric method	BS 729: 1971 (App. A - Stripping test) BS 2989: 1982 App. A BS 2989: 1991 App. A BS EN 10346: 2015 Annex A BS EN ISO 1460: 1995 in conjunction with the following specification(s) BS 2989: 1982 Cl. 3.4 BS 2989: 1991 Cl. 3.3 BS EN 10346: 2015 Cl. 8.5.5.1
Concrete (chemical analysis)	Cement and aggregate content (by CaO determination) Aggregate/Cement ratio Chloride ion content Sulphate content Determination of chloride content in hardened concrete	BS 1881: Part 124: 1988 Cl. 5.4 & 5.9 CS1: 2010 Section 21.6 BS 1881: Part 124: 1988 Cl. 5.9 BS 1881: Part 124: 1988 Cl. 10.2 CS1: 2010 Section 21.10.2 BS 1881: Part 124: 1988 Cl. 10.3 CS1: 2010 Section 21.10.3 BS EN 14629: 2007 (Method A)

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Pulverised fuel ash (chemical analysis)	Alkali content Sodium oxide content Potassium oxide content	BS EN 196-2: 2005 Cl. 17 (Reference Method) BS EN 196-2: 2013 Cl. 4.5.19 (Reference Method) BS EN 196-2: 2005 Cl. 17 (Reference Method) BS EN 196-2: 2013 Cl. 4.5.19 (Reference Method) BS EN 196-2: 2005 Cl. 17 (Reference Method) BS EN 196-2: 2013 Cl. 4.5.19 (Reference Method)
Metallic materials (chemical analysis)	Elemental composition: -	
Copper and copper alloy	- Aluminium, Arsenic, Antimony, Cadmium, Chromium, Iron, Lead, Manganese, Nickel, Magnesium, Phosphorus, Silicon, Sulphur, Tin, Zinc - Copper - Silver	In-house method CHM-CU-MULTI (ICP-OES) In-house method CHM-CU-CU (ICP-OES) In-house method CHM-CU-AG (ICP-OES)
Solder alloy - Tin and tin alloy	- Cadmium, Lead, Nickel	In-house method CHM-TIN-CDNI&PB (ICP-OES)

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Iron (chemical analysis)	Total carbon content	BS EN ISO 15350: 2010 (Method A) ISO 15350: 2000 (Method A) GB/T 20123: 2006 In-house method CHM-STL(IN)-C&S (Carbon-Sulphur Analyser by Infrared Spectrometric Method)
	Sulfur content	BS EN ISO 15350: 2010 (Method A) ISO 15350: 2000 (Method A) GB/T 20123: 2006 In-house method CHM-STL(IN)-C&S (Carbon-Sulphur Analyser by Infrared Spectrometric Method)
	Nitrogen content	BS EN ISO 15351: 2010 ISO 15351: 1999 GB/T 20124: 2006
Steel (chemical analysis)	Total carbon content	BS EN ISO 15350: 2010 (Method A) ISO 15350: 2000 (Method A) GB/T 20123: 2006 In-house method CHM-STL(IN)-C&S (Carbon-Sulphur Analyser by Infrared Spectrometric Method)
	Sulphur content	BS EN ISO 15350: 2010 (Method A) ISO 15350: 2000 (Method A) GB/T 20123: 2006 In-house method CHM-STL(IN)-C&S (Carbon-Sulphur Analyser by Infrared Spectrometric Method)
	Nitrogen content	BS EN ISO 15351: 2010 ISO 15351: 1999 GB/T 20124: 2006
	Carbon Equivalent Value	CS2: 2012 Cl. 1.5.1 BS 4449: 2005 +A2: 2009 Cl. 7.1
	Niobium	In-house Method CHM-STL-NB (ICP-OES)

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Construction Materials 建築材料

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Steel (chemical analysis) (cont'd)	- Chromium, Copper, Manganese, Molybdenum, Nickel, Phosphorus, Silicon, Titanium, Vanadium	In-house Method CHM-STL-MULTI (ICP-OES)
Carbon and low alloy steel (chemical analysis)	- Aluminium - Chromium, Copper, Manganese, Molybdenum, Nickel, Phosphorus, Silicon, Vanadium	In-house Method CHM-STL-AL (ICP-OES) In-house method CHM-STL-MULTI(II) (X-Ray Fluorescence Spectrometry)
Stainless steel (Grade 304, 316, 317 and 321) (chemical analysis)	- Chromium, Manganese, Molybdenum, Nickel, Phosphorus, Silicon	BS EN 10315: 2006
Steel reinforcing bar (Product analysis grade 250, 500B & 500C) (chemical analysis)	Carbon, Sulphur, Phosphorus, Nitrogen, Nitrogen binding element (Vanadium), Copper and Carbon Equivalent Value	CS2: 2012 Cl. 1.5.1 in conjunction with SCCT Technical Note No. 3 <i>Test procedure for compliance testing of total carbon and sulphur:</i> BS EN ISO 15350: 2010 (Method A) ISO 15350: 2000 (Method A) GB/T 20123: 2006 In-house method CHM-STL(IN)-C&S (Carbon-Sulphur Analyser by Infrared Spectrometric Method) <i>Test procedure for compliance testing of nitrogen:</i> BS EN ISO 15351: 2010 ISO 15351: 1999 GB/T 20124: 2006 <i>Test procedure for compliance testing of copper, phosphorous & nitrogen binding element (vanadium):</i> In-house Method CHM-STL-MULTI (ICP-OES) In-house method CHM-STL-MULTI(II) (X-Ray Fluorescence Spectrometry) <i>Test procedure for compliance testing of carbon equivalent value:</i> CS2: 2012 Cl. 1.5.1

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat N, 17/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong
 香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 17 樓 N 室

Environmental Testing 環境測試

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Tap water (chemical analysis)	Physical Examination: - - Color - Conductivity - Turbidity Non-metallic constituents :- - Chlorine (total residual) - Chlorine (free residual)	APHA 22e 2120 B APHA 22e 2510 B APHA 22e 2130 B APHA 22e 4500-Cl G APHA 22e 4500-Cl G
Tap water (≥ 1 NTU) (chemical analysis)	Trace metals (Total recoverable): - - Aluminium, Antimony, Arsenic, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium	In-house method CHM-WTR-METALS-ICPMS (ICP-MS)
Potable water (<1 NTU) (chemical analysis)	Trace metals (Total recoverable): - - Aluminium, Antimony, Arsenic, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Mercury	In-house method CHM-WTR-METALS-ICPMS (ICP-MS)
Water and Wastewater (chemical analysis)	Physical Examination: - - pH value - Total suspended solid dried at 103 to 105°C Organic Pollutants:- - Chemical Oxygen Demand	APHA 22e 4500-H ⁺ B APHA 22e 2540D APHA 22e 5220C

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat N, 17/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 17 樓 N 室

Environmental Testing 環境測試

ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Water and Wastewater	Microbiological tests:- - Total Coliform - Faecal Coliform - <i>E. coli</i> - Heterotrophic Plate count (Colony count at 35°C)	DoE (1983) The Bacteriological Examination of Drinking Water Supplies, 1982 (Membrane Filtration Procedure: Section 7.8 and 7.9.4.1; Bacterial Confirmation: Section 7.9.4.3) DoE (1983) The Bacteriological Examination of Drinking Water Supplies, 1982 (Membrane Filtration Procedure: Section 7.8 and 7.9.4.2; Bacterial Confirmation: Section 7.7.6.3) DoE (1983) The Bacteriological Examination of Drinking Water Supplies, 1982 (Membrane Filtration Procedure: Section 7.8 and 7.9.4.2; Bacterial Confirmation: Section 7.9.4.4 and in-situ urease test) APHA 22e 9215 A & B

Qualitech Testing & Consultancy Limited

匯駿檢測及顧問有限公司

Flat E, 6/F, Block B, Universal Industrial Centre, 19-25 Shan Mei Street, Fo Tan, New Territories, Hong Kong

香港新界火炭山尾街 19-25 號宇宙工業中心 B 座 6 樓 E 室

Miscellaneous 雜類		
ITEM TESTED OR MEASURED 測試或量度項目	SPECIFIC TEST OR PROPERTY MEASURED 特定測試或量度的特性	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED 規範、標準方法或應用技術
Diesel containing $\leq 25\%$ (w/w) FAME	Total sulfur	ASTM D2622-16 <Excluding the following> Cl. 5.2, Cl. 5.3 & Cl. 8.1
Diesel fuel containing $\leq 30\%$ (V/V) FAME	Total sulfur	ISO 20884:2019 (with modification) <Excluding the following> Cl. 5.3, Cl. 7 & Cl. 8.1 para. 2
Diesel fuel	Fatty acid methyl ester (FAME)	EN 14078: 2014 <Excluding the following> Cl. 6