



**Research Engineering Development Facade Consultants Ltd. -
Fire and Facade Testing Laboratory**

雄略幕牆顧問有限公司 – 消防及幕牆檢測實驗中心

ADDRESS : DD134, Lot No. 126-128, Lung Kwu Tan, Tuen Mun,
地址 New Territories, Hong Kong.
香港新界屯門龍鼓灘丈量約份第134約地段第126-128號

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CLIENTELE : Public
服務對象 公眾



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雄略幕牆顧問有限公司 – 消防及幕牆檢測實驗中心

DRESS

地址

- Main Laboratory Location** : DD134, Lot No. 126-128, Lung Kwu Tan, Tuen Mun,
New Territories, Hong Kong.
香港新界屯門龍鼓灘丈量約份第 134 約地段第 126-128 號
- Branch Laboratory** : Unit 02, 28/F, Global Gateway Tower, 63 Wing Hong Street,
Cheung Sha Wan, Kowloon
香港九龍長沙灣永康街 63 號 Global Gateway Tower 28 樓 02 室
- Test Location 1** : Route YE60, Shan Pi Village, Lilin Town, Zhong Kai Gao Xin District,
Huizhou City, Guang Dong Province, China
中國廣東省惠州市仲愷高新區瀝林鎮山陂村 YE60 路
- Test Location 2** : No. 111 Jiaoxin Road, Lanhe Town, Nansha District, Guangzhou, China
中國廣州市南沙區欖核鎮滘新路 111 號
- ACCREDITED TEST CATEGORY** : Construction Materials 建築材料
- 認可測試類別**

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 香港新界屯門龍鼓灘丈量約份第 134 約地段第 126-128 號

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
Building Glass	Non-destructive photoelastic measurement of surface stresses in flat glass	ASTM C1279-09
Fire (Fire Resistance Tests)	Fire resistance tests for loadbearing vertical elements (excluding impact test) in the force range 0 kN - 800 kN	AS 1530.4-2005 AS 1530.4-2014 ASTM E119-11a ASTM E119-12a ASTM E119-14 ASTM E119-15 ASTM E119-16a BS 476: Part 20: 1987 and BS 476: Part 21: 1987 BS EN 1365: Part 1: 1999 (excl. Cl. 9.5) BS EN 1365: Part 1: 2012 (excl. Cl. 9.5) GB/T 9978.1-2008 and GB/T 9978.4-2008 ISO 834: Part 1: 1999(E) and ISO 834: Part 4: 2000(E) UL 263: 2011
	Fire resistance tests for loadbearing horizontal elements in the force range 0 kN - 800 kN	AS 1530.4-2005 AS 1530.4-2014 ASTM E119-11a ASTM E119-12a ASTM E119-14 ASTM E119-15 ASTM E119-16a BS 476: Part 20: 1987 and BS 476: Part 21: 1987 BS EN 1365: Part 2:2000 BS EN 1365: Part 2:2014 GB/T 9978.1-2008 and GB/T 9978.5-2008 ISO 834: Part 1: 1999(E) & ISO 834: Part 5: 2000(E) UL 263: 2011
	Fire resistance tests for non-loadbearing vertical and horizontal elements of building construction	AS 1530.4-2005 AS 1530.4-2014 ASTM E119-11a ASTM E119-12a ASTM E119-14 ASTM E119-15 ASTM E119-16a BS 476: Part 20: 1987 and BS 476: Part 22: 1987 GB/T 9978.1-2008 and GB/T 9978.8-2008 GB/T 9978.1-2008 and GB/T 9978.9-2008 UL 263: 2011

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Fire (Fire Resistance Tests) (cont'd)	Fire resistance tests for door, shutters and openable windows Fire resistance tests of door assemblies Fire resistance tests for fire doorsets and shutters assemblies Fire resistance tests for glazed elements of building construction Fire resistance tests for non-loadbearing vertical elements (excluding impact test) Fire resistance tests for non-loadbearing horizontal elements Fire resistance tests for loadbearing elements - beams in the force range 0 kN - 800 kN Fire resistance tests for loadbearing elements - columns in the force range 0 kN - 800 kN Fire resistance tests – general requirements alternative and additional procedures (excluding impact test)	BS EN 1634: Part 1: 2014 NFPA 252:2012 SS332: 2007 + Amd. 1: 2009 Cl. 4 and Annex E UL 10B-2009 UL 10C-2009 ASTM E2074-2000 BS EN 1634: Part 1: 2008 and BS EN 1634: Part 2: 2008 GB/T 7633-2008 ISO 3008: 2007(E) GB/T 12513-2006 ISO 3009-2003(E) NFPA 257: 2012 BS EN 1364: Part1: 1999 (excl. Cl. 9.5) BS EN 1364: Part1: 2015 (excl. Cl. 9.5) ISO 834: Part 1: 1999(E) and ISO 834: Part 8: 2002(E) BS EN 1364: Part 2:1999 ISO 834: Part 1:1999(E) and ISO 834: Part 9:2003(E) BS EN 1365: Part 3: 2000 ISO 834: Part 1: 1999(E) and ISO 834: Part 6: 2000(E) BS EN 1365: Part 4: 1999 ISO 834: Part 1: 1999(E) and ISO 834: Part 7: 2000(E) BS EN 1363: Part 1: 1999 BS EN 1363: Part 2: 1999 (excl. Cls. 4 & 7) BS EN 1363: Part 1: 2012 ISO 834: Part 1: 1999 + Amd. 1: 2012(E) ASTM E119-12a ASTM E119-14 ASTM E119-15 ASTM E119-16a UL 263: 2011

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Fire (Fire Resistance Tests) (cont'd)	Fire resistance tests of lift landing doors	BS EN 81: Part 58: 2003
	Fire resistance tests for non-loadbearing elements: curtain walling	BS EN 1364: Part 3: 2006 BS EN 1364: Part 3: 2014 BS EN 1364: Part 4: 2007 BS EN 1364: Part 4: 2014
	Fire resistance tests on components for smoke and heat control systems – Specification for smoke curtains	BS 7346: Part 3: 1990 (Cl. 4.1)
	– Specification for natural smoke and heat exhaust ventilators	BS EN 12101: Part 2: 2003 (App. C, D &G)
	Temperature/time resistance tests for smoke barriers	BS EN 12101: Part 1: 2005 + A1: 2006 (Annex D only)
	Fire resistance tests for service installations - Raised access and hollow core floors	BS EN 1366: Part 6: 2004
	Fire resistance tests for service installations - Service ducts and shafts	BS EN 1366: Part 5: 2010
	Fire resistance tests for shutters assemblies	SS 489: 2001 Cl. 4 SS 489: 2015 Cl. 5
	Fire testing of an assembly subject to elevated temperature (250°C/400°C)	In-house method TM1.103
	Fire (Other)	Non-combustibility test for building products
Pre-test conditioning for doors, shutters and openable windows		BS EN ISO 14600: 2005 Cl. 5.1 (excluding Cl 5.1.1.2) & Cl. 5.2
Window	Performance test on louvers	BS EN 13030: 2001 Cl. 7.1 & 7.2 AMCA 500-L-2007 Cl. 8.1 & 8.3.2

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香港九龍長沙灣永康街 63 號 Global Gateway Tower 28 樓 02 室

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Fire (Other)	Operating temperature test on fusible link	FSD Sampling Test Procedure on Fusible Link for use in Fire Damper of Ventilating System 2005, Cl. 3

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中國廣東省惠州市仲愷高新區瀝林鎮山陂村 YE60 路

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Building Glass	Impact performance requirements for flat safety glass/plastics Frost point sealed insulating glass units Frost point sealed insulating glass units in vertical position Non-destructive photoelastic measurement of surface stress in flat glass Determination of bending strength of glass	BS 6206: 1981 and ANSI Z97.1: 2009 ASTM E 546-2008 ASTM E 576-2008 ASTM C1279-09 ASTM C1279-13 Cl. 15.1 BS EN 1288: Part 3: 2000
Curtain Wall	Safety test for curtain wall system -cyclic test Water penetration by uniform static air pressure difference Water penetration by cyclic static air pressure difference Structural performance by uniform static air pressure difference Water penetration by dynamic pressure Air leakage Static test to seismic and wind interstory drafts	Buildings Department APP 37 May 2012 (App B) ASTM E331: 2000 (Reapproved 2009) AS/NZS 4284: 2008, Clause 8.5 ASTM E547: 2000 (Reapproved 2009) AS/NZS 4284: 2008, Clause 8.6 ASTM E330: 2002 (Reapproved 2010) AS/NZS 4284: 2008, Clause 8.2, 8.3 and 8.8 AAMA 501.1: 2005 ASTM E283: 2004 AS/NZS 4284: 2008, Clause 8.4 AAMA 501.4: 2009 AS/NZS 4284: 2008, Clause 8.9
建築幕牆	建築幕牆氣密性能檢測方法 建築幕牆水密性能檢測方法 建築幕牆抗風壓性能檢測方法 建築幕牆平面內變形性能檢測方法 建築幕牆層間變形性能分級及檢測方法	GB/T 15227-2007 GB/T 15227-2007 GB/T 15227-2007 GB/T 18250: 2000 GB/T 18250: 2015

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Fire (Fire Resistance Tests)	Fire resistance tests for loadbearing horizontal elements in the force range 0 kN – 800 kN	AS 1530.4-2005 AS 1530.4-2014 ASTM E119-11a ASTM E119-12a ASTM E119-14 ASTM E119-15 ASTM E119-16a BS 476: Part 20: 1987 and BS 476: Parts 21:1987 BS EN1365: Part 2: 2000 BS EN1365: Part 2: 2014 GB/T 9978.1-2008 and GB/T 9978.5-2008 ISO 834: Part 1: 1999 (E) and ISO 834: Part 5: 2000 (E) UL263: 2011
	Fire resistance tests for non- loadbearing vertical and horizontal elements of building construction	AS 1530.4-2005 AS 1530.4-2014 ASTM E119-11a ASTM E119-12a ASTM E119-14 ASTM E119-15 ASTM E119-16a BS 476: Part 20: 1987 and BS 476: Parts 22:1987 GB/T 9978.1-2008 and GB/T 9978.8-2008 GB/T 9978.1-2008 and GB/T 9978.9-2008 UL263: 2011
	Fire resistance tests for concrete tunnel fire protection linings to RWS curve	In-house method TM1.104
	Fire resistance tests for door, shutters and openable window	BS EN 1634: Part 1: 2014 NFPA 252: 2012
	Fire resistance tests for door assemblies	SS 332: 2007 + Amd. 1: 2009 Cl.4 Annex E UL10B-2009 UL 10C-2009 ASTM E2074-2000
	Fire resistance tests for doorsets and shutters assemblies	BS EN 1634: Part 1: 2008 and BS EN 1634: Part 2: 2008 GB/T 7633-2008 ISO 3008: 2007 (E)
Fire resistance tests for glazed elements of building construction	GB/T 12513: 2006 ISO 3009: 2003(E) NFPA 257: 2012	

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Fire (Fire Resistance Tests) (cont'd)	Fire resistance tests for non-loadbearing vertical elements (excluding impact test) Fire resistance tests for non-loadbearing Horizontal elements Fire resistance tests for loadbearing elements - Beams in the force range 0 kN – 800 kN Fire resistance tests – general requirements alternative and additional procedures (excluding impact test) Fire resistance tests of lift landing doors Fire resistance tests for non-loadbearing elements: curtain walling Fire resistance tests on components for Smoke and heat control systems - Specification for smoke curtains - Specification for natural smoke and heat exhaust ventilators Temperature/time resistance tests for smoke barrier Fire resistance tests for service installations - raised access and hollow core floors Fire resistance tests for service installations - services ducts and shafts	BS EN 1364: Part 1: 1999 (excl. Cl. 9.5) BS EN 1364: Part 1: 2015 (excl. Cl. 9.5) ISO 834: Part 1: 1999(E) and ISO 834: Part 8: 2002 (E) BS EN 1364: Part 2: 1999 ISO 834: Part 1: 1999(E) and ISO 834: Part 9: 2003 (E) BS EN 1365: Part 3: 2000 ISO 834: Part 1: 1999(E) and ISO 834: Part 6: 2000 (E) BS EN 1363: Part 1: 1999 BS EN 1363: Part 2: 1999 (excl. Cls. 4 & 7) BS EN 1363: Part 1: 2012 ISO 834: Part 1: 1999 + Amd. 1: 2012 (E) ASTM E119-12a ASTM E119- 14 ASTM E119-15 ASTM E119-16a UL 263: 2011 BS EN 81: Part 58: 2003 BS EN 1364 :Part 3: 2006 BS EN 1364 :Part 3: 2014 BS EN 1364 :Part 4: 2007 BS EN 1364 :Part 4:2014 BS 7346: Part 3: 1990 (Cl. 4.1) BS EN 12101: Part 2: 2003 (App. C, D & G) BS EN 12101: Part 1: 2005 + A1: 2006 (Annex D only) BS EN 1366: Part 6: 2004 BS EN 1366: Part 5: 2010

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Fire (Other)	Fire resistance tests for shutter assemblies	SS 489: 2001 Cl.4 SS 489: 2015 Cl. 5
	Fire testing of an assembly subject to elevated temperature (250°C/400°C)	In-house method TM1.103
	Determination of the gross heat of combustion	BS EN ISO 1716: 2010
	Non-combustibility test for building products	AS 1530.1: 1994 (reconfirmed 2016) BS 476: Part 4 : 1970 BS EN ISO 1182: 2010
	Pre-test conditioning for doors, shutters and openable windows	BS EN ISO 14600: 2005 Cl 5.1 (excl Cl. 5.1.1.2) & Cl. 5.2
Windows	Performance test on louvers	BS EN 13030: 2001 Cl. 7.1 & 7.2 AMCA 500-L-2007 Cl. 8.1 & 8.3.2
	Windows – deflection test	AS 4420.2: 1996
	Windows, external glazed, timber and composite doors – deflection test	AS 4420.1: 2016 Section 3
	Windows – operating force test	AS 4420.3: 1996
	Windows, external glazed, timber and composite doors – operating force test	AS 4420.1: 2016 Section 4
	Windows – air infiltration test	AS 4420.4: 1996
	Windows, external glazed, timber and composite doors – air infiltration test	AS 4420.1: 2016 Section 5
	Windows – water penetration resistance test	AS 4420.5: 1996
	Windows, external glazed, timber and composite doors – water penetration resistance test	AS 4420.1: 2016 Section 6
	Windows – ultimate strength test	AS 4420.6: 1996
	Windows, external glazed, timber and composite doors – ultimate strength test	AS 4420.1: 2016 Section 7

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Building Glass	Impact performance requirements for flat glass	BS EN 12600: 2002
Curtain Wall	Safety test for curtain wall system -cyclic test	Building Department APP 37 May 2012 (App. B)
	Water penetration by uniform static air pressure difference	ASTM E331: 2000 (Reapproved 2009) AS/NZS 4284: 2008, Cl. 8.5
	Water penetration by cyclic static air pressure difference	ASTM E547: 2000 (Reapproved 2009) AS/NZS 4284: 2008, Cl. 8.6
	Structural performance by uniform static air pressure difference	ASTM E330: 2002 (Reapproved 2010) AS/NZS 4284: 2008, Cl. 8.2, 8.3 and 8.8
	Water penetration by dynamic pressure	AAMA 501.1: 2005
	Air leakage	ASTM E283: 2004 AS/NZS 4284: 2008, Cl. 8.4
	Static test to seismic and wind interstory drafts	AAMA 501.4: 2009 AS/NZS 4284: 2008, Cl. 8.9
	建築幕牆	建築幕牆氣密性能檢測方法
	建築幕牆水密性能檢測方法	GB/T 15227-2007
	建築幕牆抗風壓性能檢測方法	GB/T 15227: 2007
	建築幕牆平面內變形性能檢測方法	GB/T 18250: 2000
	建築幕牆層間變形性能分級及檢測方法	GB/T 18250: 2015
Falling Rock Protection Kits	Identification tests on net elements: ring nets and energy dissipating device in the force range 60 kN - 1000 kN	ETAG 027: 2012 + Amd. 2013 Annex C.2, C.3.1

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Fire (Fire Resistance Tests)	Intermittent flame test for building coverings	UL 790-2008 Cl. 6 ASTM E108-2011 Cl. 8
	Spread of flame test for building coverings	UL 790-2008 Cl. 7 ASTM E108-2011 Cl. 9 UL 1703-2008 Cl. 31.1
	Burning brand test for building coverings	UL 790-2008 Cl. 8 ASTM E108-2011 Cl. 10 UL 1703-2008 Cl. 31.2
Fire (Other)	Fire tests on building materials and structures Method of test to determine the classification of the surface spread of flame of products	BS 476: Part 7: 1997
	Pre-test conditioning test for door, shutter and openable windows	BS EN ISO 14600: 2005 Cl. 5.1 (excluding Cl. 5.1.1.2) & Cl. 5.2
Fire (Smoke Control Tests)	Smoke control test for smoke control doors and shutters	BS EN 1634: Part 3: 2004
	Test for permeability to smoke for Static Smoke Barrier	BS EN 12101: Part 1: 2005 + A1:2006 Cl. 4.4.2, Annex C.2, C.3 & C.4

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Windows	Windows – deflection test	AS 4420.2: 1996
	Windows, external glazed, timber and composite doors – deflection test	AS 4420.1: 2016 Section 3
	Windows – operating force test	AS 4420.3: 1996
	Windows, external glazed, timber and composite doors – operating force test	AS 4420.1: 2016 Section 4
	Windows – air infiltration test	AS 4420.4: 1996
	Windows, external glazed, timber and composite doors – air infiltration test	AS 4420.1: 2016 Section 5
	Windows – water penetration resistance test	AS 4420.5: 1996
	Windows, external glazed, timber and composite doors – water penetration resistance test	AS 4420.1: 2016 Section 6
	Windows – ultimate strength test	AS 4420.6: 1996
	Windows, external glazed, timber and composite doors – ultimate strength test	AS 4420.1: 2016 Section 7