

### **Building (Construction) Regulation**

The Building (Construction) Regulation (the Regulation) sets out the performance requirements for the design and construction of building, street, building works and street works.

2. Appendix A lists out those standards or technical criteria accepted by the Building Authority as complying with the performance requirements stipulated in the Regulation. Plans based on other versions, standards or technical criteria may be approved if they can be shown to achieve the performance requirements. It will facilitate the processing of such plans if full background of other versions, standards or technical criteria, and their compatibility with local conditions, are detailed in the submission.

3. In this connection, please approach the Buildings Department at an early stage for agreement in principle to any alternative standards or technical criteria being considered.

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Building Authority

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**Standards/Technical Criteria Acceptable by the  
Building Authority**

**(1) Design and Construction**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Concrete	Hong Kong Code of Practice	Code of Practice for Structural Use of Concrete 2013 (2020 Edition)
Fire Safety in Buildings	Hong Kong Code of Practice	Code of Practice for Fire Safety in Buildings 2011 (June 2023 Edition)
Foundation	Hong Kong Code of Practice	Code of Practice for Foundations 2017
Precast Concrete	Hong Kong Code of Practice	Code of Practice for Precast Concrete Construction 2016
Steel	Hong Kong Code of Practice	Code of Practice for the Structural Use of Steel 2011 (2023 Edition)
	Explanatory Materials	Explanatory Materials to Code of Practice for the Structural Use of Steel 2011
Wind Effect	Hong Kong Code of Practice	Code of Practice on Wind Effects in Hong Kong 2019
	Explanatory Notes	Explanatory Notes to the Code of Practice on Wind Effects in Hong Kong 2019
Dead and Imposed Loads	Hong Kong Code of Practice	Code of Practice for Dead and Imposed Loads 2011 (2021 Edition)
Aluminium	BS 8118	Structural use of aluminium.
	Part 1: 1991 <sup>^</sup>	Part 1: Code of practice for design
Glass	Hong Kong Code of Practice	Code of Practice for Structural Use of Glass 2018
Stainless Steel	SCI Publication P291	Structural Design of Stainless Steel

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Timber	BS 5268	Structural Use of Timber.
	Part 2:2002	Part 2: Code of Practice for Permissible Stress Design, Materials and Workmanship
	Part 3:2006	Part 3: Code of Practice for Truss Rafter Roofs
	Part 4:1990	Part 4: Fire Resistance of Timber Structures
Glassfibre Reinforced Concrete	-	Practical Design Guide for Glass Reinforced Concrete published by the Technical Committee of the Glassfibre Reinforced Concrete Association
Elastomeric / Mechanical Bearing	General Specification for Civil Engineering Works	General Specification for Civil Engineering Works 2020 issued by Civil Engineering and Development Department (CEDD)
Miscellaneous	BS 5628 Part 1: 2005	Code of practice for the use of masonry. Structural use of unreinforced masonry
	BS 6031: 2009	Code of practice for earthworks
	BS 8298 Part 1-4: 2010	Code of practice for design and installation of natural stone cladding and lining

^ BS 8118 : Part 1 : 1991 (BS 8118) has been replaced by various parts of BS EN 1999 and both of which adopt limit state design approach. The use of BS 8118 for the design of structural aluminium works will continue to be accepted for local applications. With effect from 1 January 2017, a partial load factor of 1.4 for wind load should be adopted in lieu of the corresponding partial load factor as specified in Table 3.1 of BS 8118, except for amendment submissions where approval for structural plans with the original design adopting the original partial load factor of 1.2 for wind load as specified in BS 8118 has been approved.

(2) **Materials, Workmanship and Testing**

(a) **Concrete**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material, Steel Reinforcing Bars, Testing	Hong Kong Code of Practice	Code of Practice for Structural Use of Concrete 2013 (2020 Edition)

(b) **Steel**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material, Bolt, Welding Consumables, Welding Standard, Welding Procedure Specification, Welder Qualification Tests, Protective Treatment, Destructive Test of Material, Non-Destructive Test Materials	Hong Kong Code of Practice	Code of Practice for the Structural Use of Steel 2011 (2023 Edition)

(c) **Aluminium**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material	BS EN 1999 Part 1-1:2007 +A2:2013	Design of aluminium structures – General structural rules
	BS 8118 Part 2: 1991	Structural use of aluminium. Specification for materials, workmanship and protection
	BS 1161: 2017	Specification for aluminium alloy sections for structural purposes

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material	BS EN 485 Part 1: 2016 Part 2: 2016 + A1:2018 Part 3: 2003 Part 4: 1994	Aluminium and aluminium alloys. Sheet, strip and plate
	BS EN 515: 2017	Aluminium and aluminium alloys. Wrought products. Temper designations
	BS EN 573 Part 1: 2004 Part 2: 1995 Part 3: 2019	Aluminium and aluminium alloys. Chemical composition and form of wrought products
	BS EN 586 Part 1: 1998 Part 2: 1994 Part 3: 2001	Aluminium and aluminium alloys. Forgings
	BS EN 603 Part 1-2: 1997	Aluminium and aluminium alloys. Wrought forging stock
	BS EN 754 Part 1-2: 2016 Part 3-6: 2008 Part 7-8: 2016	Aluminium and aluminium alloys. Cold drawn rod/bar and tube
	BS EN 755 Part 1-2: 2016 Part 3-6: 2008 Part 7-9: 2016	Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles
	BS EN 12020 Part 1: 2022 Part 2: 2016	Aluminium and aluminium alloys. Extruded precision profiles in alloys EN AW-6060 and EN AW-6063

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material	BS EN 1396: 2015	Aluminium and aluminium alloys. Coil coated sheet and strip for general applications. Specifications
Connection	BS 1473: 1972	Specification for wrought aluminium and aluminium alloys for general engineering purposes – rivet, bolt and screw stock
	BS 1494 Part 1: 1964	Specification for fixing accessories for building purposes. Fixings for sheet, roof and wall coverings
Welding	BS 4872 Part 2: 1976	Specification for approval testing of welders when welding procedure approval is not required. TIG or MIG welding of aluminium and its alloys
	BS EN 1011 Part 4: 2000	Welding. Recommendations for welding of metallic materials. Arc welding of aluminium and aluminium alloys
	BS EN ISO 4063: 2010	Welding and allied processes. Nomenclature of processes and reference numbers
	BS EN ISO 9606 Part 2: 2004	Qualification test of welders. Fusion welding. Aluminium and aluminium alloys
	BS EN ISO 15614 Part 2: 2005	Specification and qualification of welding procedures for metallic materials. Welding procedure test. Arc welding of aluminium and its alloys
	BS EN ISO 14555: 2006	Welding. Arc stud welding of metallic materials
	BS EN ISO 13918: 2008	Welding. Studs and ceramic ferrules for arc stud welding
Testing	BS EN ISO 17637: 2016	Non-destructive examination of fusion welds. Visual examination
	BS EN ISO 17640: 2018	Non-destructive testing of welds. Ultrasonic testing. Techniques, testing levels, and assessment
	BS EN ISO 6892 Part 1:2019	Tensile testing of metallic materials. Method of test at ambient temperature

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Testing	BS EN ISO 6506 Part 1: 2019	Metallic materials. Brinell hardness test. Test method
	BS EN ISO 6507 Part 1: 2005	Metallic materials. Vickers hardness test. Test method
	BS EN ISO 7438:2016	Metallic materials. Bend test

**(d) Timber**

<b>Category</b>	<b>Standard</b>	<b>Title</b>
Material	BS EN 338: 2016	Structural timber. Strength classes
	BS EN 14081 Part 1: 2016 +A1: 2019 Part 2: 2018 +A1: 2022 Part 3: 2022 Part 4: 2009	Timber structures. Strength graded structural timber with rectangular cross section
	BS EN 1912: 2012	Structural timber. Strength classes. Assignment of visual grades and species
	BS 4978: 2007+A2: 2017	Visual strength grading of softwood. Specification
	BS 5756: 2007+A2: 2017	Visual strength grading of hardwood. Specification
	Preservative Treatment	BS 5268 Part 5: 1989

**(e) Glass**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material, Testing	Hong Kong Code of Practice	Code of Practice for Structural Use of Glass 2018

**(f) Stainless Steel**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material	BS EN 10088 Part 1-3: 2014	Stainless steels
Fasteners	BS EN ISO 3506 Part 1-2: 2020 Part 3-4: 2009	Mechanical properties of corrosion-resistant stainless steel fasteners
Welding Consumables	BS EN 1090 Part 2: 2008	Execution of steel structures and aluminium structures - Technical requirements for steel structures
Welding Standard	BS EN 1011 Part 3: 2018	Welding. Recommendations for welding of metallic materials. Arc welding of stainless steels
Welding Procedure Specification	BS EN ISO 15614 Part 1: 2017 +A1: 2019 Part 8: 2016	Specification and qualification of welding procedures for metallic materials. Welding procedure test
Weld Qualification Tests	BS EN ISO 9606 Part 1: 2017	Qualification testing of welders. Fusion welding - Steels
Testing of Material	BS EN ISO 148 Part 1:2016	Metallic materials – Charpy pendulum impact test. Test method
	BS EN ISO 6892 Part 1: 2019	Metallic materials – Tensile testing. Method of test at ambient temperature
Non-destructive Test of Welds	BS EN ISO 17637: 2016	Non-destructive testing of welds. Visual testing of fusion-welded joints
	BS EN ISO 3452 Part 1: 2021	Non-destructive testing. Penetrant testing. General principles
	BS EN ISO 17640: 2018	Non-destructive testing of welds. Ultrasonic testing, Techniques, testing levels and assessment
	BS EN ISO 5817: 2014	Welding – Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) – Quality levels for imperfections

**(g) Masonry**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Material	BS EN 413 Part 1: 2011	Masonry cement. Composition, specifications and conformity criteria
	BS EN 771 Part 1-6: 2011+A1:2015	Specification of masonry units. Part 1: Clay masonry units Part 2: Calcium silicate masonry units Part 3: Aggregate concrete masonry units (Dense and lightweight aggregates) Part 4: Autoclaved aerated concrete masonry units Part 5: Manufactured stone masonry units Part 6: Natural stone masonry units
	BS EN 845 Part 1 & 3: 2013 +A1: 2016	Specification for ancillary components for masonry. Part 1: Wall ties, tension straps, hangers and brackets Part 3: Specification for ancillary components for masonry. Bed joint reinforcement of steel meshwork
	BS EN 934 Part 3: 2009 +A1: 2012	Admixtures for concrete, mortar and grout. Admixtures for masonry mortar. Definitions, requirements, conformity, marking and labelling
	BS EN 998 Part 2: 2016	Specification for mortar for masonry. Masonry mortar
	BS 4729: 2005 + A1:2016	Clay bricks of special shapes and sizes. Recommendations

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Testing	BS EN 772	Methods of test for masonry units.
	Part 1: 2011 +A1: 2015	Part 1: Determination of compressive strength;
	Part 2: 1998	Part 2: Determination of percentage area of voids in masonry units (by paper indentation);
	Part 7: 1998	Part 7: Determination of water absorption of clay masonry damp proof course units by boiling in water;
	Part 16: 2011	Part 16: Determination of dimensions
	BS EN 1015	Methods of test for mortar for masonry.
	Part 2: 1999	Part 2: Bulk sampling of mortars and preparation of test mortars
	Part 11: 2019	Part 11: Determination of flexural and compressive strength of hardened mortar
	BS EN 1052	Methods of test for masonry.
	Part 1:1999	Part 1: Determination of compressive strength;
Part 2: 2016	Part 2: Determination of flexural strength;	
Part 3: 2002	Part 3: Determination of initial shear strength;	
Part 4: 2000	Part 4: Determination of shear strength including damp proof course	

**(h) Glassfibre Reinforced Concrete**

<b>Category</b>	<b>Standard</b>	<b>Title</b>
Material	BS EN 1169: 1999	Precast concrete products. General rules for factory production control of glass-fibre reinforced cement
	BS EN 12467: 2012 +A2: 2018	Fibre-cement flat sheets. Product specification and test methods
Testing	BS EN 14649: 2005	Precast concrete products. Test method for strength retention of glass fibres in cement and concrete (SIC test)
	BS EN 14581: 2004	Natural stone test methods. Determination of linear thermal expansion coefficient
	BS EN 1170 Part 5: 1998	Precast concrete products. Test method for glass-fibre reinforced cement – Measuring bending strength, “complete bending test” method
	ASTM C1354-15	Standard Test Method for Strength of Individual Stone Anchorages in Dimension Stone

**(i) Elastomeric / Mechanical Bearing**

<b>Category</b>	<b>Standard/ Technical Criterion</b>	<b>Title</b>
Testing	General Specification for Civil Engineering Works	General Specification for Civil Engineering Works 2020 issued by CEDD

**(j) Miscellaneous Materials**

<b>Category</b>	<b>Standard</b>	<b>Title</b>
Sealant	Hong Kong Code of Practice	Code of Practice for Structural Use of Glass 2018
	BS 3712	Building and construction sealants
	Part 1: 1996	
	Part 2: 2000	
	Part 3: 2000	
Part 4: 1996		
Gypsum Binders and Gypsum Plasters	BS EN 13279	Gypsum binders and gypsum plasters
	Part 1:2008	
	Part 2:2014	
Gypsum Plaster Board	BS EN 520:2004 +A1:2009	Gypsum plasterboard. Definitions, requirements and test methods
Natural Stone	BS EN 12372: 2022	Natural stone test methods. Determination of flexural strength under concentrated load
	ASTM C880/C880M-18e1	Standard Test Method for Flexural Strength of Dimension Stone
	ASTM C1354/C1354M-22	Standard Test Method for Strength of Individual Stone Anchorages in Dimension Stone
Fire - Testing	Hong Kong Code of Practice	Code of Practice for Fire Safety in Buildings 2011
Anchors	BS 5080	Structural fixings in concrete and masonry
	Part 1: 1993	
	Part 2: 1986	

Note : The editions referred to in the list should include any amendments effective as at December 2023. Such editions are the most suitable for Hong Kong and may not be the latest version of the standards or technical criteria.

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