Contents

Preface	6
0 Intr	oduction 8
0.1	General 8
0.1.1	Applicability 8
0.1.2	Content 8
0.2	Performance Classes and Grades 9
0.2.1	General 9
0.2.2	Guidance for the specifier/purchaser 9
0.2.3	Performance Grade (PG) designations 9
0.2.4	Positive and negative ASD design pressure (DP) 10
0.2.5	Water penetration resistance testing and performance 10
1 Sco	pe 10
1.1	General 10
1.2	Terminology 11
1.3	Units of measurement 12
1.4	Clause categories 12
2 Refe	erence publications 13
Z Reit	erence publications 15
3 Defi	initions 24
4 Gen	neral requirements 25
4.1	General 25
4.1.1	Interpretations 25
4.1.2	Compliance 25
4.1.3	Additional standards for Canada 25
4.2	Gateway performance requirements 25
4.3	Performance Class 26
4.4	Performance Grades (PG) 26
4.4.1	General 26
4.4.2	Assignment of Performance Grade (PG) 26
4.5	Maximum size tested (MST) 26
4.6	Product designations 27
4.6.1	General 27
4.6.2	Primary Designator 27
4.6.3	Secondary Designator 28
4.7	Fenestration type and test size requirements 30
4.7.1	General 31
4.7.2	Product dimensions and tolerances 31
4.8	Basement windows, hinged windows, side lites, fixed doors, door transoms, dual windows o
	dual doors, and secondary storm products 32
4.8.1	Basement windows 32
4.8.2	Hinged windows 32
4.8.3	Side lites, fixed doors, and door transoms 32

4.8.4	Dual windows or dual doors 32
4.8.5	Secondary storm products 33
4.8.6	Specialty Products (SP) 35
4.9	Special shapes and sizes 36
4.9.1	Special shapes and sizes — Single-hung windows 36
4.9.2	Special shapes and sizes — Double-hung windows 38
4.9.3	Special shapes and sizes — Single sliding windows and doors 40
4.9.4	Special shapes and sizes — Double sliding windows and doors 42
4.10	Qualification of designs, configurations, and assemblies 44
4.10.1	General 45
4.10.2	Geometry and components 45
4.10.3	Operation and orientation 45
4.10.4	Dividers (muntins) 45
1.10.1	Situation (marting) 15
5 Mul	lions 46
5.1	Mullion rating AWS 46
5.1.1	General 46
5.1.2	Mullion rating options 46
5.1.3	Mullion rating specific requirements and qualifications 46
5.2	Field mulling without manufacturer's involvement 46
5.3	Vertical (dead load) deflection AWS 47
5.4	Mullion assembly performance 47
5.4.1	General 47
5.4.2	Water testing AWS 47
5.4.3	Air leakage testing AWS 47
5.5	Mullion assembly Primary Designator 47
5.6	Mullion assembly Secondary Designator 48
	e-hinged, dual-action side-hinged, and folding doors (all classes) 48
6.1	General 49
6.2	Performance requirements 49
6.2.1	Dual door designation 49
6.2.2	Gateway performance requirements 49
6.2.3	Test specimen installation AWS 52
6.2.4	Limited Water testing AWS 52
6.2.5	Uniform load deflection test AWS 52
6.2.6	Side-hinged door assembly qualification 52
6.2.7	Side-hinged door assembly qualification limits 54
6.2.8	Folding door assembly qualification 54
7 Unit	skylights, including roof windows and tubular daylighting devices (TDDs) 56
7.1	General 56
7.1	TDD, roof window, and unit skylight requirements 56
7.2.1	General 56
7.2.1	Test specimen installation AWS 60
	·
7.2.3	
7.2.4	1 - P
7.2.5 7.2.6	Uniform load testing (see Clause <u>8.3.4</u>) AWS 60 Auxiliary tests for roof windows and unit skylights DUR 61
/ .∠.U	Turniary lesis for foot withows allo will skylights DUR - U1

8 Gen	eral testing requirements 62
8.1	Testing requirements and sequence 62
8.1.1	Applicability 62
8.1.2	Testing requirements 62
8.1.3	Alternative minimum test sizes and minimum Performance Grades (PG) for selected Class LC
	products (optional) AWS 68
8.1.4	Details of testing sequence AWS DUR 72
8.1.5	Test specimens 73
8.2	Test specimen requirements 73
8.2.1	General 73
8.2.2	Alterations 73
8.2.3	Specimen size 73
8.2.4	Test specimen installation AWS DUR 74
8.3	Testing methods AWS DUR 76
8.3.1	Operating force DUR 76
8.3.2	Air leakage resistance test AWS 79
8.3.3	Water penetration resistance test AWS 80
8.3.4	Uniform load tests AWS 83
8.3.5	Forced-entry resistance test AWS 84
8.3.6	Auxiliary (durability) tests DUR 85
8.4	Laboratory test report 89
8.4.1	Summary data 89
8.4.2	Detailed data 90
	rerial and component requirements 97
9.1	Requirements without alternative 97
9.1.1	General 97
9.1.2	Glazing and glass 97
9.1.3	Framing/cladding materials 100
9.1.4	Weatherstrip and/or weatherseal CPM/DUR 102
9.1.5	Sealants CPM/DUR 102
9.1.6	Hardware 102
9.1.7	Insect screens CPM 105
9.1.8	Door lite insert frame materials CPM DUR 105
9.1.9	Coatings and finishes CPM DUR 105
9.1.10	Other components or materials CPM 106 Requirements with alternative 106
9.2	Requirements with alternative 106 General 106
9.2.1 9.2.2	
9.2.2	Plastic glazing 107 Wood adhesives CPM DUR 107
9.2.4	Aluminum exterior cladding CPM 107
9.2.5	Aluminum thermal barrier construction 107
9.2.6	Aluminum thermal barrier extrusions CPM DUR 107
9.2.7	Fiberglass and carbon fiber door skins CPM DUR 108
9.2.8	Steel sheet CPM DUR 108
9.2.9	Material tolerance CPM DUR 108
9.2.10	Other components and materials CPM 108
9.3	Design Guidance 108
9.3.1	Fasteners CPM 108

- 9.3.2 Reinforcing members DL 109
- 9.3.3 Setting blocks CPM 109
- 9.3.4 Window opening control devices (WOCDs) and window fall prevention devices CPM 110

Annex A (informative) — Commentary 111