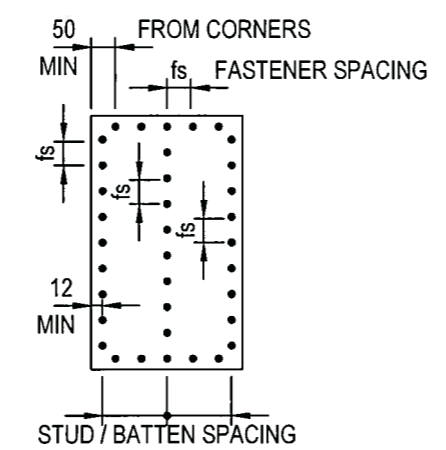
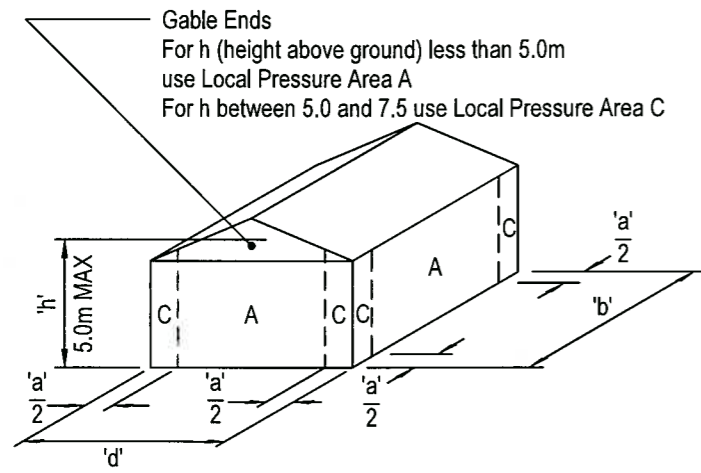


NORTHERN TERRITORY TO COMPLY MANUAL - National Construction Code Volume 2 (Section 3.0.4 Structural resistance of material in high wind areas)

This product has been determined to satisfy NCC Performance Requirement P2.1.1 for structural stability and resistance.



TYPICAL 7.5mm 'DURATEX'™ FIXING DETAILS

LOWSET OR HIGHSET BUILDING
Dimension 'a' is minimum 0.2 x 'b', 0.2 x 'd' or 'h'

LOCAL PRESSURE AREAS
A - general areas greater than $\frac{a}{2}$ away from building corners ($k_L = 1.5$)
C - up to $\frac{a}{2}$ from building corners ($k_L = 2.0$)
 k_L - local pressure zone factor applied to wind speed

WALL CLADDING REQUIREMENTS					
TERRAIN CATEGORY	LOCAL PRESSURE AREA	ULTIMATE LIMIT STATE PRESSURE (kPa)	STUD/BATTEN SPACING (mm)	FASTENER SPACING (mm)	TESTED CAPACITY PRESSURE (kPa)
1	A	-3.10, +3.34	300	150	-4.27
	C	-4.13	300	150	-4.27
2	A	-2.33, +2.51	450	150	-2.90
	C	-3.10	300	150	-4.27
2.5	A	-2.13, +2.29	450	200	-2.19
	C	-2.84	450	150	-2.90
3 & 4	A	-1.94, +2.08	450	200	-2.19
	C	-2.58	450	150	-2.90

CONSTRUCTION NOTES
'Duratex'™ shall be fastened to a steel sub-frame in accordance with the cladding spans and fastener spacings tabulated above. Fasteners shall be fixed a minimum of 12mm from sheet edges and a minimum of 50mm from sheet corners. All sheet edges and sheet joints must be supported on steel framing. Fasteners to steel supports from 0.75mm mm B.M.T. to 1.6mm B.M.T. shall be 'Buildex' or similar M5x20 Countersunk Ribbed Head self-drilling screws. For fixing 'Duratex' to built-in mullions in steel stud walls up to 3.0mm thick use 'Buildex' WingTeks 10-16 CSK RIB.

Product Name
7.5mm 'DURATEX'™ Fibre Cement Cladding

Product Description
EXTERNAL WALL CLADDING

Manufacturer's Details
BCG Fibre Cement (Australia) Pty Ltd
121 Bannister Road Canning Vale WA 6155, Australia
Postal Address: PO Box 1408, Canning Vale WA 6970

Design Criteria
REGION 'C' WIND LOADING TO AS / NZS 1170.2:2011 (Including Amendment No 1, 2, 3, 4 & 5)

Limit State design pressures were determined in accordance with AS/NZS 1170.2:2011(including amendment No 1, 2, 3, 4 & 5) using shielding, topographic, combination, dynamic response, and structural importance multipliers equal to 1.0.
Strength: regional wind speed: $V_{500} = 69\text{m/s}$
Terrain/Height Multiplier (Mz cat):

TC	h ≤ 5m	Cpe = +0.7,-0.65
1	1.05	
2	0.91	
2.5	0.87	
3 & 4	0.83	

- Limitations**
- These tables only apply to fixing to steel supports minimum thickness of steel support to be 0.75mm.
 - BCG External cladding to be painted to BCG specifications.
 - Wall panels to be 2700 max height.
 - Domestic housing up to 5 meters high (h ≤ 5m).
 - 7.5mm 'Duratex'™ is an external cladding for the application of a textured coating, and only subject to external pressure or suction. **An internal lining competent to resist internal design pressure must be installed. The racking strength of 'Duratex'™ has not been tested and should not be allowed for in the design of a structure.**
 - The building aspect ratio (r) of the structure to be ≤ 1. If r > 1 further checks of additional local pressures to be carried out by a fully qualified structural engineer. r is defined as the average roof height divided by the lesser of b and d.
 - A material capacity reduction factor of 0.8 was applied to the test capacity pressures nominated in the table to calculate the test pressures (Pt) used during the proof testing, which was carried out by Cyclone Structural Testing Station (James Cook University).

Accepted for inclusion in Deemed to Comply Manual

DTCM drawing number: **m/260/01**

Chairperson Signature:

Chairperson Name: **Paul Nowland**

Date of Approval: **29/06/2021** Expiry Date: **29/06/2026**

Notes covering basis of DTC (Relevant Test reports etc)
Tables are based on a test program to AS 4040.3:1992 clause 6, carried out by James Cook University Cyclone Testing Station in July 1998 (Test Report No TS514). We confirm AS 4040.3:1992 is equivalent to AS 4040.3:2018. The negative ULS pressures are deemed to govern, due to the associated critical failure mechanism.

Checking Engineer
Name: **Adam James**
Registration Number: **26968ES**
Date: **20/05/2021**
Signature:

Must be an Australian registered structural engineer

Certifying Engineer
Name: **Peter Standen**
NT Registration Number: **289952ES**
Date: **12/05/2021**
Signature:

Must be a registered structural engineer in the Northern Territory