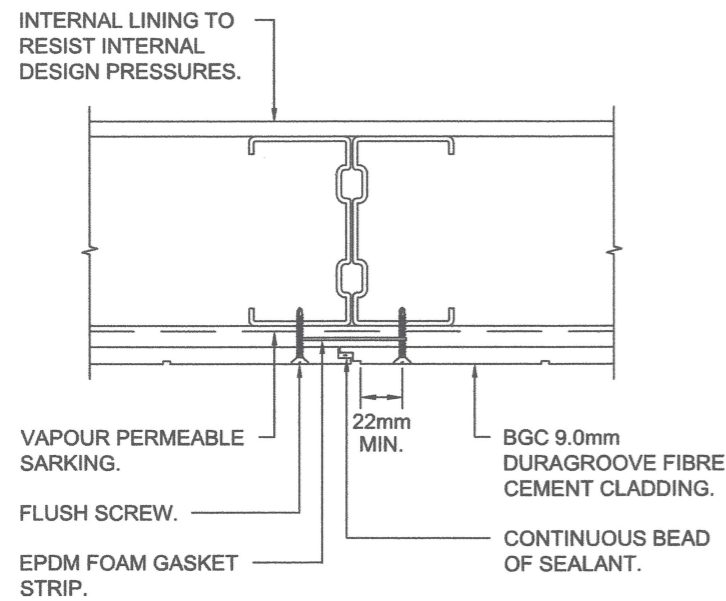
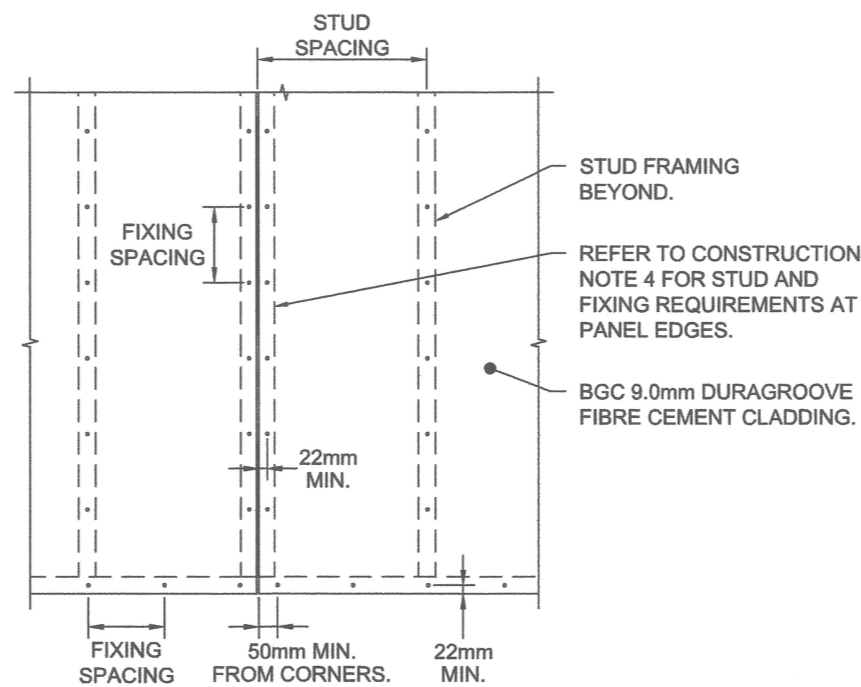


NORTHERN TERRITORY DEEMED TO COMPLY MANUAL - National Construction Code (NCC) Volume 2

This product has been determined to satisfy NCC Performance Requirement H1P1 for structural resistance of materials and forms of construction in high wind areas



JOINT DETAIL



TYPICAL FIXING DETAIL

DURAGROOVE WALL CLADDING TABLE

WIND CLASS	ULTIMATE LIMIT STATE - EXTERNAL PRESSURE (kPa)		WITHIN 1200mm OF BUILDING CORNERS		ELSEWHERE ON THE BUILDING	
	WITHIN 1200mm OF CORNERS	ELSEWHERE ON THE BUILDING	MAXIMUM STUD SPACING (mm)	MAXIMUM FIXING SPACING (mm)	MAXIMUM STUD SPACING (mm)	MAXIMUM FIXING SPACING (mm)
N4	-2.90	-1.45, +1.56	450	150	450	200
N5	-4.27	-2.14, +2.30	300	150	450	180
N6	-5.77	-2.88, +3.11	300	100	450	135
C1	-1.95	-0.98, +1.05	450	200	450	200
C2	-2.90	-1.45, +1.56	450	150	450	200
C3	-4.27	-2.14, +2.30	300	150	450	180
C4	-5.77	-2.88, +3.11	300	100	450	135

CONSTRUCTION NOTES:

- BGC 9.0mm DURAGROOVE CLADDING IS TO BE FIXED TO STEEL WALL FRAMING AS PER THE ABOVE TABLE AND THE BELOW NOTES.
- STEEL WALL FRAMES TO BE CONSTRUCTED IN ACCORDANCE WITH THE NATIONAL ASSOCIATION OF STEEL FRAMED HOUSING STANDARD - DESIGN OF RESIDENTIAL AND LOW-RISE HOUSING, NASH:2009 & NASH PART 1:2005 (Incl. Amdt A, B, C).
 - ALL STEEL WALL FRAME MEMBERS TO BE IN ACCORDANCE WITH AS4600:2018 WITH MINIMUM THICKNESS TO BE 0.75mm. (MINIMUM GRADE G550).
 - FIXINGS:
 - FOR FIXING INTO STEEL 0.75mm TO 1.2mm USE No.10-18x30 FIBRETEKS.
 - FOR FIXING INTO STEEL GREATER THAN 1.2mm USE No.8-18x30 WINGTEKS.
 - FOR FIXING INTO STEEL GREATER THAN 1.2mm WITH INSULATION OVER, USE No.10-16x55 WINGTEKS.
 - WHEN INSTALLING CLADDING OVER INSULATION, INCREASE THE SCREW LENGTH TO ENSURE A MINIMUM OF TWO THREADS PROTRUDE THROUGH THE FAR SIDE OF THE SUPPORT.
 - ALL FIXINGS TO BE CLASS 4 FINISH.
- ALL EDGES MUST BE SUPPORTED ON STUDS OR NOGGINS. PROVIDE DOUBLE STUDS OR NOGGINS WHERE REQUIRED TO ACHIEVE THIS AND MAINTAIN MINIMUM EDGE DISTANCES. FIX TO NOGGINS AT SHEET JOINTS AS PER TOP AND BOTTOM PLATE. INTERNAL NOGGINS NOT AT PANEL JOINTS DO NOT REQUIRE FIXINGS.
- ALL FIXINGS ARE TO BE A MINIMUM OF 22mm FROM SHEET EDGES AND MINIMUM OF 50mm FROM SHEET CORNERS.
- DUE TO HIGHER WIND PRESSURE AT THE EDGES OF BUILDING, THE STUD SPACINGS ARE REDUCED AT THESE LOCATIONS.
- THE VALUES PRESENTED IN THE WALL CLADDING TABLE ON THIS SPECIFICATION ARE THE MAXIMUM STUD SPACINGS AS REQUIRED TO SUPPORT CLADDING.

Notes covering basis of DTC (Relevant test reports etc)

- TABLES ARE BASED ON A TEST PROGRAM TO AS4040.3:1992 CLAUSE 6, CARRIED OUT BY JAMES COOK UNIVERSITY TESTING STATION IN MAY 1997 (TS486).
- IT IS CONFIRMED THAT THE REQUIREMENTS OF AS4040.3:2018 C16 ARE CONSISTENT WITH THOSE IN THE 1992 EDITION OF THE CODE.
- THE NEGATIVE ULS PRESSURES ARE DEEMED TO GOVERN, DUE TO THE ASSOCIATED CRITICAL FAILURE MECHANISM.

Checking Engineer

Name: ALAN DOWLING
 Registration Number: NER 3251796
 Date: 4/9/23
 Signature: *[Signature]*
 Must be an Australian registered structural engineer

Certifying Engineer

Name: ADAM JAMES
 NT Registration Number: 26968ES
 Date: 30/08/2023
 Signature: *[Signature]*
 Must be a registered structural engineer in the Northern Territory

Product Name
9.0mm 'DURAGROOVE' Fibre Cement Cladding

Product Description
EXTERNAL WALL CLADDING TO STEEL FRAMING

Manufacturer's Details
BGC Fibre Cement (Australia) Pty Ltd
 38-40 Magnet Rd, Canning Vale, WA 6155 Australia
 PO Box 7223, Cloisters Square, WA 6850 Australia

- Design Criteria**
- WIND CLASSES N4-N6 AND C1 TO C4 TO AS4055-2021 WIND LOADS FOR HOUSING.
 - WIND CLASSES ARE AS OUTLINED IN AS4055-2021 WIND LOADS FOR HOUSING
 - THE CAPACITIES AND FIXING REQUIREMENTS SHOWN ON THIS CERTIFICATION ARE SUITABLE FOR FIXING TO STEEL STUDS.
 - A MATERIAL CAPACITY REDUCTION FACTOR OF 0.8 HAS BEEN USED FOR ALL PROOF TESTING BY BRANZ AND CYCLONE STRUCTURAL TESTING STATION.
 - FIBRE CEMENT SHEETS HAVE BEEN MANUFACTURED IN ACCORDANCE WITH AS/NZS 2908.2:2000 CELLULOSE CEMENT PRODUCTS PART 2: FLAT SHEETS OR ISO 8336:2018 FIBRE CEMENT FLAT SHEETS - PRODUCT SPECIFICATION AND TEST METHODS.
 - THE FOLLOWING STANDARDS APPLY TO THIS DESIGN:
 AS/NZS1170.0:2002 (Incl. Amdt 1,2,3,4,5), AS/NZS1170.1:2002 (Incl. Amdt 1,2 & R2016), AS/NZS1170.2:2021 (Incl. Amdt 1), AS4040.0:1992 (R2016), AS4040.1:1992 (R2016), AS4040.3:2018, AS4055:2021, AS4100:2020 (Incl. Amdt 1), AS/NZS4600:2018.

- Limitations**
- BGC CLADDING TO BE PAINTED TO BGC SPECIFICATIONS.
 - DOMESTIC HOUSING WITH MAXIMUM BUILDING DIMENSIONS AND LAYOUT AS PER AS4055:2021 - WIND LOADS FOR HOUSING.
 - WALL PANELS TO BE 2700mm HIGH MAX.
 - THIS TABLE IS FOR FIXING TO A STEEL FRAME ONLY, WITH FIXING AS DETAILED ON THIS SPECIFICATION. FIXINGS ARE NOT TO BE OVER-DRIVEN INTO FIBRE CEMENT SHEETING, AND ANY OVER-DRIVEN FIXINGS ARE TO BE REPLACED.
 - STUD CAPACITY MAY BE LIMITING, AND IS TO BE CHECKED SEPARATELY BY A QUALIFIED ENGINEER. THE VALUES PRESENTED IN THIS DRAWINGS ARE THE MAXIMUM STUD SPACINGS REQUIRED TO SUPPORT THIS CLADDING.
 - 9.0mm DURAGROOVE IS AN EXTERNAL WALL CLADDING SUBJECT TO ONLY EXTERNAL PRESSURE AND SUCTION LOADINGS. INTERNAL LININGS COMPETENT TO RESIST INTERNAL DESIGN PRESSURES MUST BE INSTALLED. THE RAKING STRENGTH HAS NOT BEEN TESTED AND THEREFORE SHOULD NOT BE ALLOWED FOR IN THE DESIGN OF A STRUCTURE.
 - TESTING WAS CONDUCTED FOR NEGATIVE (SUCTION) PRESSURES ONLY. COMPARISON HAS ONLY BEEN MADE BETWEEN THESE VALUES AND THE NEGATIVE ULS VALUES WHICH ARE DEEMED TO GOVERN.

Accepted for inclusion in Deemed to Comply Manual

DTCM drawing number: M/375/01

Chairperson Signature: *[Signature]*

Chairperson Name: Paul Nowland

Date of Approval: 6/09/2023 Expiry Date: 6/09/2028