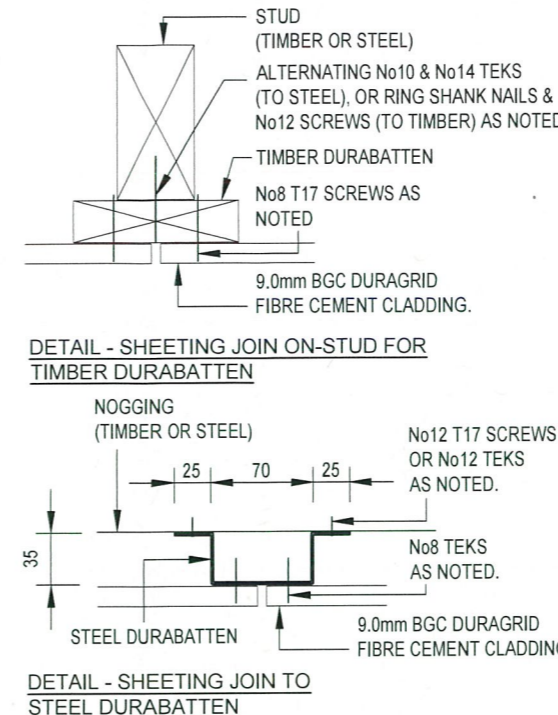
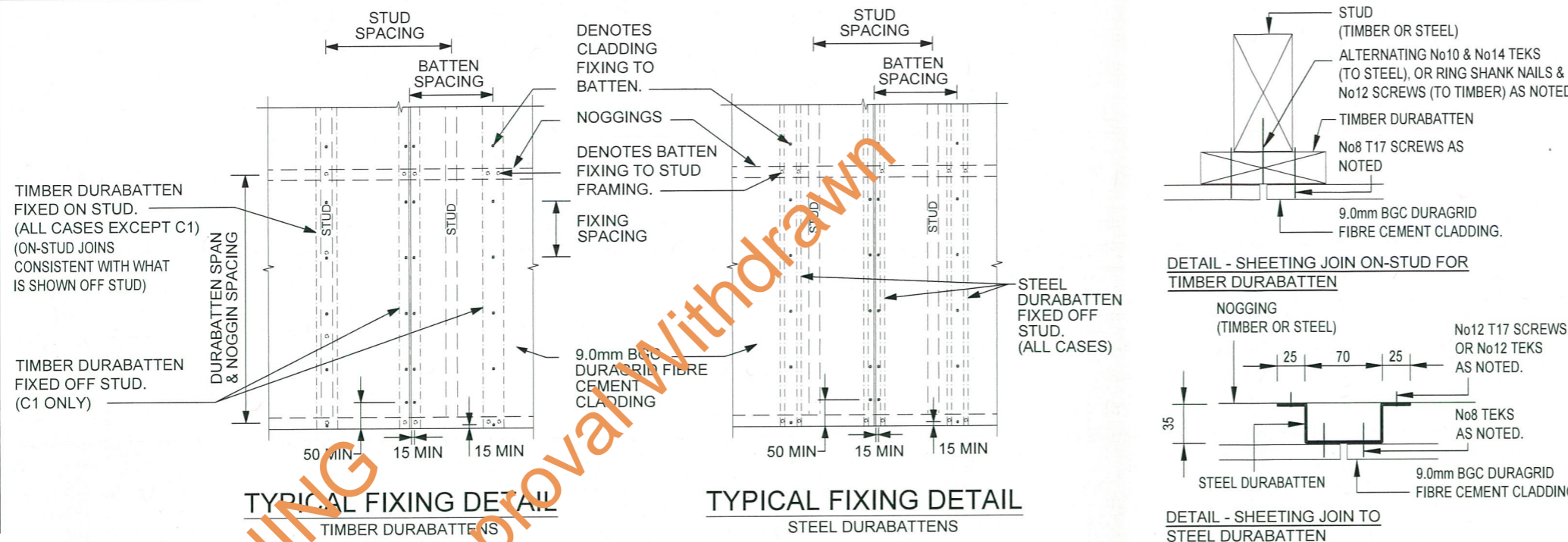


IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



Product Name:
9.0mm 'DURAGRID' Fibre Cement Cladding

Product Description:
EXTERNAL WALL CLADDING TO STEEL OR TIMBER FRAMING

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

- Design Criteria:
1. WIND CLASSES N4-N6 AND C1 TO C4 TO AS4055-2012 WIND LOADS FOR HOUSING (INCLUDING AMENDMENT 1)
 2. WIND CLASSES ARE AS OUTLINED IN AS4055-2012-WIND LOADS FOR HOUSING.
 3. THE CAPACITIES AND FIXING REQUIREMENTS SHOWN ON THIS CERTIFICATION ARE SUITABLE FOR FIXING TO TIMBER AND STEEL STUDS.
 4. A MATERIAL CAPACITY REDUCTION FACTOR OF 0.8 HAS BEEN USED FOR ALL PROOF TESTING BY BRANZ AND CYCLONE STRUCTURAL TESTING STATION.
 5. FIBRE CEMENT SHEETS HAVE BEEN MANUFACTURED IN ACCORDANCE WITH AS/NZS 2908.2:2000 CELLULOSE CEMENT PRODUCTS PART 2: FLAT SHEETS OR ISO 8336:2009 FIBRE CEMENT FLAT SHEETS - PRODUCT SPECIFICATION AND TEST METHODS.
 6. 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), AS/NZS1170.2:2011 (INCL. AMDT 1,2,3,4), AS4055:2012 (INCL. AMDT, 1), AS4100:1998 (INCL. AMDT 1), ASNZS4600:2005 (INCL. AMDT 1), AS4040.0:1992, AS4040.1:1992, AS4040.3:1992.

WIND CLASS	ULTIMATE LIMIT STATE EXTERNAL PRESSURE WITHIN 1200mm OF CORNERS (kPa)	ULTIMATE LIMIT STATE EXTERNAL PRESSURE ELSEWHERE (kPa)	MAXIMUM STEEL / TIMBER DURABATTEN SPAN (mm)	MAXIMUM DURABATTEN SPACING WITHIN 1200mm OF CORNERS (mm)	MAXIMUM FIXING SPACING WITHIN 1200mm OF CORNERS (mm)	MAXIMUM DURABATTEN SPACING ELSEWHERE (mm)	MAXIMUM FIXING SPACING ELSEWHERE (mm)
N4	-2.90	-1.45, +1.56	900	450	140	450	200
N5	-4.27	-2.14, +2.30	900	300	140	450	180
N6	-5.77	-2.88, +3.11	850	300	100	450	135
C1	-1.35	-0.98, +1.05	900	450	200	450	200
C2	-2.00	-1.45, +1.56	900	450	140	450	200
C3	-4.27	-2.14, +2.30	900	300	140	450	180
C4	-5.77	-2.88, +3.11	850	300	100	450	135

- CONSTRUCTION NOTES:
1. BGC 9.0mm DURAGRID CLADDING MAY BE FIXED TO A TIMBER OR STEEL WALL FRAME AS PER THE INFORMATION ON THIS SPECIFICATION. ALL FIXINGS TO BE CENTRAL TO BATTENS/STUDS UNLESS AT JOINS IN THE SHEETING.
 2. TIMBER WALL FRAMING:
 - TO BE CONSTRUCTED IN ACCORDANCE WITH AS1684-2010 RESIDENTIAL TIMBER FRAMED CONSTRUCTION. TIMBER CONNECTIONS TO BE MINIMUM JOINT GROUP JD4.
 - WHERE NOGGINGS ARE TO SUPPORT BATTENS/CLADDING, NOGGINGS AND THEIR CONNECTIONS TO BE INDEPENDENTLY CHECKED AND CERTIFIED FOR ADEQUACY TO SUPPORT LOADS.
 3. STEEL WALL FRAMING:
 - TO BE CONSTRUCTED IN ACCORDANCE WITH THE NATIONAL ASSOCIATION OF STEEL FRAMED HOUSING (NASH:2005) STANDARD - DESIGN OF RESIDENTIAL AND LOW-RISE HOUSING.
 - TO BE IN ACCORDANCE WITH AS4600:2005-COLD-FORMED STEEL STRUCTURES WITH MINIMUM THICKNESS TO BE 1.0mm. (MIN GRADE G450).
 - WHERE NOGGINGS ARE TO SUPPORT BATTENS/CLADDING, NOGGINGS AND THEIR CONNECTIONS TO BE INDEPENDENTLY CHECKED AND CERTIFIED FOR ADEQUACY TO SUPPORT LOADS.
 4. TIMBER DURABATTENS:
 - TIMBER DURABATTENS TO BE MIN 75x19 KAPUR, WITH MIN F17 STRESS GRADE. WHERE FIXING ON STUD, STUD SPACING TO BE AS PER THE DURABATTEN SPACING IN THE ABOVE TABLE.
 - ON-STUD: FIX TIMBER DURABATTEN TO STEEL STUDS WITH No10-18 TEKS @ 300C/C. AT SHEETING JOINS PROVIDE ADDITIONAL No14 TEKS @ 300 C/C.
 - ON-STUD: FIX TIMBER DURABATTEN TO TIMBER STUDS WITH 75X2.8mm RING SHANK NAILS @ 300C/C. AT SHEETING JOINS PROVIDE ADDITIONAL No12 T17 SCREWS @ 300 c/c (40MIN EMBEDMENT).
 - ON-STUD: FIX CLADDING THROUGH TIMBER BATTEN AND INTO STUD WITH No8 T17 SCREWS, (20MIN EMBEDMENT) OR No8 TEKS INTO STEEL STUD, EXCEPT AT SHEETING JOINS.
 - ON-STUD AT SHEETING JOINS: FIX CLADDING TO TIMBER BATTEN WITH No8 T17 SCREWS, AND ENSURE FIXINGS ARE FULLY ENGAGED IN BATTEN WITH 10mm PROTRUSION.
 - OFF-STUD(C1 ONLY): FIX TIMBER DURABATTENS TO STEEL NOGGING WITH 2No 8-18 x 40mm TEKS.
 - OFF-STUD(C1 ONLY): FIX TIMBER DURABATTENS TO TIMBER NOGGING WITH 2No12 T17 SCREWS, 40 MIN EMBEDMENT TO NOGGING.
 - OFF-STUD (C1 ONLY): FIX DURAGRID CLADDING TO TIMBER BATTEN WITH No8 T17 SCREWS, AND ENSURE FIXINGS ARE FULLY ENGAGED IN BATTEN WITH 10mm PROTRUSION.
 5. STEEL DURABATTENS:
 - STEEL DURABATTENS TO BE 35x70x0.75 (MINIMUM GRADE G550), STEEL DURABATTENS CAN ONLY BE FIXED OFF STUD DUE TO PROFILE OF DURABATTEN.
 - FIX STEEL DURABATTENS TO STEEL WALL FRAME WITH 2No 12-14 x 20mm TEKS.
 - FIX STEEL DURABATTENS TO TIMBER WALL FRAMES WITH 2No12 T17 SCREWS, 40 MIN EMBEDMENT TO NOGGING.
 - FIX DURAGRID CLADDING TO STEEL DURABATTEN WITH No8-18 x 30mm FIBRE TEKS.
 6. ALL FIXINGS ARE TO BE A MINIMUM OF 15mm FROM SHEET EDGES AND A MINIMUM OF 50mm FROM SHEET CORNERS, AND TO BE CLASS 4 FINISH.

- Limitations
1. MAXIMUM BUILDING DIMENSIONS AND LAYOUT TO BE AS PER AS4055-2012-WIND LOADS FOR HOUSING. (INCLUDING AMENDMENT 1)
 2. CLADDING IS TO BE PAINTED TO BGC'S SPECIFICATION.
 3. WALL PANELS TO BE MAX 2700 HIGH.
 4. THIS TABLE APPLIES FOR FIXING TO A TIMBER OR STEEL FRAME WITH FIXINGS AS DETAILED ON THIS SPECIFICATION.
 5. DURAGRID CLADDING IS AN EXTERNAL CLADDING SUITABLE ONLY FOR EXTERNAL PRESSURES AND SUCTION LOADS. INTERNAL LININGS THAT ARE ADEQUATE TO RESIST INTERNAL DESIGN PRESSURES MUST BE INSTALLED.
 6. BGC DURAGRID CLADDING IS NOT SUITABLE TO CARRY RACKING LOADS.
 7. FIXINGS ARE NOT TO BE OVER-DRIVEN INTO FIBRE CEMENT SHEETING. OVER-DRIVEN FIXINGS ARE TO BE REPLACED.
 8. STUD CAPACITY MAY BE LIMITING AND IS TO BE CHECKED SEPARATELY BY A QUALIFIED STRUCTURAL ENGINEER.
 9. THE VALUES PRESENTED IN THE WALL CLADDING TABLE ON THIS SPECIFICATION ARE THE MAXIMUM STUD SPACING AS REQUIRED TO SUPPORT CLADDING.
 10. WHERE NOGGINGS ARE TO SUPPORT BATTENS/CLADDING, NOGGINGS AND THEIR CONNECTIONS TO BE INDEPENDENTLY CHECKED AND CERTIFIED FOR ADEQUACY TO SUPPORT LOADS.

Accepted for Inclusion

DTCM ref: **M/588**

Notes covering basis of DTC:
THE CAPACITIES AND FIXING REQUIREMENTS SHOWN ON THIS CERTIFICATION ARE BASED ON THE FOLLOWING DOCUMENTATION AND RESULTS OF TESTING CONDUCTED BY BGC:

- JCU Cyclone Testing Station - REPORT NO. TS1104 (03/04/2018) - Cyclic Simulated Wind Load Strength Testing of Duragrid Facade System.
- JCU Cyclone Testing Station - REPORT NO. TS486 (19/05/1997) - Fatigue Loading of Durasheet.
- JCU Cyclone Testing Station - REPORT NO. TS514 (20/07/1998) - Fatigue Loading of Duratex.

*Checking Engineers Certification
Name: Martin Holland
Registration Number: **NER 714230**
Date: **9 July 2019**
Signature:
*registered as a structural engineer in Australia

*Certifying Engineers Certification
Name: Adam James
NT Registration Number: 26968ES
Date: 10 July 2019
Signature:
*registered as a structural engineer in the Northern Territory

Chairman's Signature:

Chairman's Name: **Paul Newland**

Date of Approval: **19-07-2019** Expiry Date: **19-07-2024**