

6mm HARDIFLEX™ or HARDIPANEL™ SHEET EXTERNAL WALL CLADDING

AS 4055	General Areas of Building			Within 1200mm of Building Edges		
Wind Load Classification	Stud Spacing (mm)	Fastener Spacing (mm)	ULS Capacity (kPa)	Stud Spacing (mm)	Fastener Spacing (mm)	ULS Capacity (kPa)
C2	450	200	2.14	450	150	2.90
C3	450	200	2.14	300	150	4.27
C4	300	200	2.88	300	100	5.77

SPECIFICATION

HARDIFLEX™ / HARDIPANEL™ SHEET

6.0mm nominal thickness. HARDIPANEL™ has 'Sierra' or 'Stucco' surface finish. A range of widths and lengths are available.

DESIGN

Sheets shall be fastened to the steel frame in accordance with the stud and screw spacings tabulated above for the different wind conditions. The wind classifications are derived from AS 4055 of 1992 "Wind Loads For Housing" as in Table 1 below. Topographic classifications beyond T2 are likely to be uncommon in Darwin (refer to Clause 10 of AS 4055).

In selecting the wind classification, the designer should first determine whether the structure is in topographic classification T1 or T2 (or other up to T5), the nature of shielding (FS = full shielding, PS = partial shielding, NS = no shielding) and the applicable terrain category. The design wind speeds are given in Table 2.

The proven capacity of each system is given in Design Table and may be used by designers for intermediate wind speeds or buildings outside the scope of AS 4055. An Ultimate Limit State material capacity reduction factor of $\phi = 0.8$ has already been applied.

WALL FRAME (STEEL)

Studs shall be rolled steel sections not exceeding 1.5m in thickness. Maximum stud spacing shall be as in the Design Table.

FASTENERS & FINISHING (refer to "External Fixing Manual")

Sheets shall be coated in accordance with Hardie's "External Fixing Manual". HARDIDRIVE™ self-embedding need drill-point screws (or equivalent) shall be used when fastening to steel framing.

FASTENER SPACING

Generally 200mm centres along all edges and intermediate framing, unless indicated otherwise in the Design Table. Do not fix fasteners closer than 12mm from panel edges nor closer than 50mm from corners. When using HARDIFLEX™ strips, both sheet edges are fixed to the stud through the HARDIJOINT™ strip.

DESIGN & CONSTRUCTION NOTES:

[1] It has been assumed that HARDIFLEX™ or HARDIPANEL™ sheet is an external wall cladding only. Internal pressures shall be resisted by internal linings. The cladding is therefore only subjected to external pressure and suction loadings.

[2] All sheet edges and joints must be supported by framing.

[3] Stud and fastener spacing designs may be applied equally to timber framed construction using Ø 2.8mm fibre cement (FC) nails.

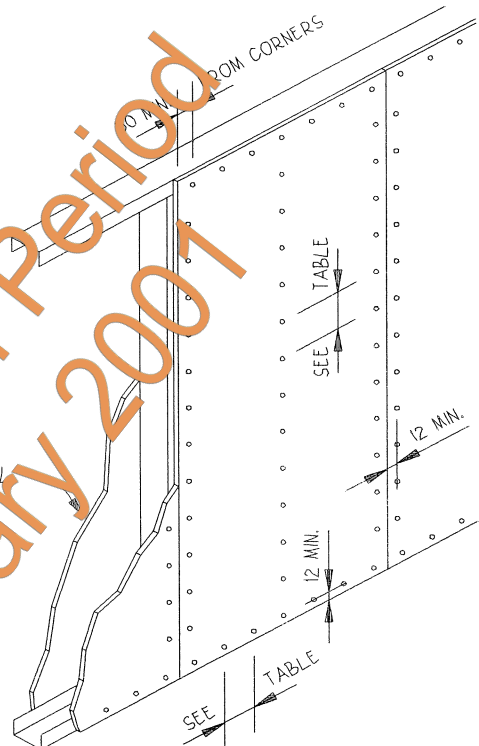


TABLE 1 Wind Classification System for Region C, Darwin						
Terrain Category	Topographic Classification T1			Topographic Classification T2		
	FS	PS	NS	FS	PS	NS
TC 2.5	C2	C2	C2	C2	C2	C3
TC 2	C2	C2	C2	C2	C3	C3
TC 1	C2	C2	C2	C2	C3	C3

TABLE 2 Maximum Design Gust Wind Speed (V_h) at Height h			
Wind Classification in Region C	Serviceability Limit State (m/s)	Permissible Stress Method (m/s)	Ultimate Limit State (m/s)
C2	39	50	61
C3	47	60	74
C4	55	70	86



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Certified: *[Signature]*
Date:

F.I.E. AUST, C.P.Eng
8th January 1996

**FIXING TO STEEL FRAMES
HARDIFLEX™ / HARDIPANEL™ 6.0 mm (nominal)
EXTERNAL WALL CLADDING
IN THE DARWIN AREA**

DESIGN DATA SHEET

NORTHERN TERRITORY
DEPT OF LANDS & HOUSING
BUILDING AUTHORITY BRANCH

Approved: *[Signature]*
Date: 11/1/96

DWG NO.

M203/6