

PRIMELINE™ NEWPORT WEATHERBOARD 9mm THICK EXTERNAL WALL CLADDING

AS 4055 Wind Load Classification	General Areas of Building			Within 1200mm of Building Edges		
	Stud Spacing (mm)	ULS Capacity (kPa)		Stud Spacing (mm)	ULS Capacity (kPa)	
		On Steel	On Timber		On Steel	On Timber
C2 & C3	450	5.8	4.3	450	5.8	4.3
C4	450	5.8	4.3	300	5.8	5.8

SPECIFICATION

PRIMELINE™ NEWPORT WEATHERBOARD CLADDING

9mm nominal thickness. Matt smooth pre-primed surface finish. Available in 170mm width only. Stock length is 4200mm. Final surface finish (coating, painting etc) shall be in accordance with James Hardie's "External Fixing Manual".

DESIGN

The weatherboards shall be fastened to the steel frame in accordance with the stud 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. 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 the 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 is implicitly included. The capacity on timber framing is lower than on steel framing because of the tendency for the nails to withdraw from the timber.

WALL FRAME (STEEL)

Studs shall be rolled steel sections not exceeding 1.6mm in thickness. Maximum stud spacing shall be as in the Design Table.

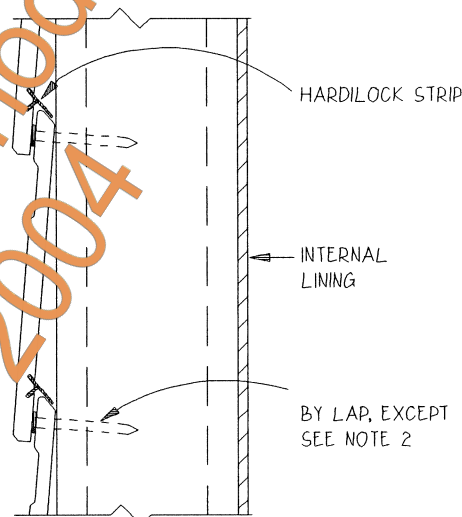
FASTENERS (refer to James Hardie's "External Fixing Manual")

HARDIDRIVE™ self-embedding head drill-point screws (or equivalent) shall be used when fastening to the steel framing. Locate fasteners as shown in the diagram, but never less than 12mm from top / bottom edges of plank. The back-fixed HARDILOCK™ system may be used in the fixing of this product.

DESIGN & CONSTRUCTION NOTES

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

[2] If the permissible stress racking capacity of 1.6kN/m (refer to DTC Sheet No.M203/5) is to be claimed, then there should be two fasteners per plank per stud, ie the screw shown in the diagram must pass through both planks.



TIMBER FRAMED CONSTRUCTION

The same stud spacing designs may be applied equally using 40mm long Ø 2.8mm fibre-cement (FC) nails. Do not use stud clips for wind classifications beyond C2. The permissible stress racking capacity is then 1.4kN/m provided that cyclone rods are used.

TABLE 1

Wind Classification System for Region C, Darwin

Terrain Category	Topographic Classification					
	T1			T2		
	FS	PS	NS	FS	PS	NS
TC 2.5	C2	C2	C2	C2	C3	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



James Hardie Australia Pty Ltd

ACN 084 635 558

1 Grand Avenue, Camellia NSW 2142, Australia

Telephone (02) 9638-9999

Visit our internet web site: www.jameshardie.com.au

McMILLAN BRITTON & KELL PTY LIMITED

ACN 001 145 035

12-18 Tryon Road, Lindfield NSW 2070, Australia

Certified: *[Signature]* F.I.E. AUST, C.P.Eng

Date: 30th July 1999

FIXING TO STEEL FRAMES
PRIMELINE™ NEWPORT WEATHERBOARD
9mm (nominal) EXTERNAL WALL CLADDING
IN THE DARWIN AREA

DESIGN DATA SHEET

NORTHERN TERRITORY DEPT OF
LANDS, PLANNING & ENVIRONMENT
BUILDING ADVISORY SERVICES BRANCH

Approved: *[Signature]*

Date: 18/8/99

DWG NO.

M/226/1