

*[Signature]* 6/1/2003

# PRIMELINE™ CHAMFER 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)
C2	450	2.9	450	2.9
C3 & C4	450	2.9	300	5.8

**SPECIFICATION**

**PRIMELINE™ CHAMFER WEATHERBOARD CLADDING**

9mm nominal thickness. Matt smooth pre-primed surface finish. Available in 295mm width only. Stock length is 4200mm. Final surface finish (coating, painting etc) shall be in accordance with James Hardie's "External Cladding Range 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.

**WALL FRAME (STEEL)**

Studs shall be rolled steel sections not exceeding 16mm thickness. Maximum stud spacing shall be as in the Design Table.

**FASTENERS (refer to J Hardie "External Fixing Manual")**

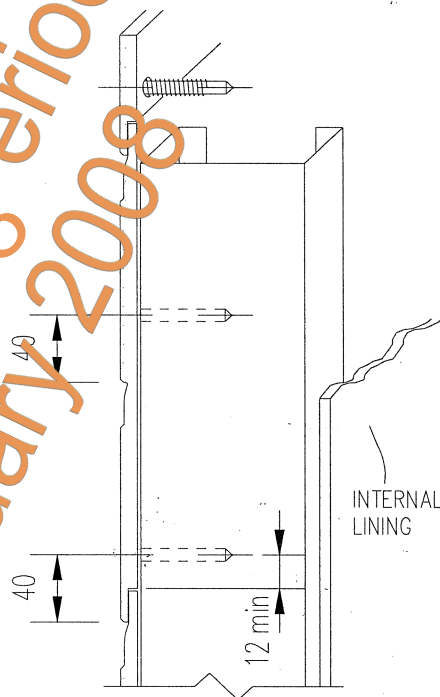
HARDIDRIVE™ self-embedding head drillment screws shall be used when fastening to the steel framing. The screw head flush with plank surface. Locate fasteners as shown in the diagram, but never less than 12mm from top / bottom edges of plank.

**TIMBER FRAMED CONSTRUCTION**

The same stud spacing designs may be applied equally using 40mm long Ø 2.8mm fibre-cement (M/C) nails.

**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] Stud clips are not available for this product.
- [3] The permissible stress racking capacity for steel framing is 1.6kN/m (see DTC Sheet No.M203/5). For timber framing it is also 1.6kN/m provided that cyclone rods are used.



**TABLE 1**

Wind Classification System for Region C (eg Darwin)	Topographic Classification					
	T1			T2		
	PS	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 <sub>n</sub> ) 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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**FIXING TO STEEL FRAMES: PRIMELINE™ CHAMFER WEATHERBOARD 9mm (nominal) EXTERNAL WALL CLADDING IN THE DARWIN AREA**

### DESIGN DATA SHEET

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 Date: 3<sup>rd</sup> October 2001

NORTHERN TERRITORY DEPT OF INFRA-STRUCTURE, PLANNING & ENVIRONMENT, BUILDING ADVISORY SERVICES BRANCH

Approved: *[Signature]*  
 Date: 6/1/03

**DWG NO.**  
M/221/3