

Appendix A – Hebel® PowerPanel™

Material Properties

Manufacturing Tolerances

Length	± 5mm
Width	± 1.5mm
Thickness	± 1.5mm
Diagonals (max.)	5mm
Edge straightness deviation (max.)	1.5mm

PowerPanel™ Physical Properties

- 1) Hebel® PowerPanel™ profile and nominal dimensions are shown in Section 14.0.
- 2) Panel reinforcement is a single layer of steel mesh with 4 longitudinal wires of 4mm diameter.
- 3) Nominal dry density = 510 kg/m³.
- 4) Average working density = 663 kg/m³ at 30% moisture content.
- 5) Average service life density = 561 kg/m³ at 10% moisture content.
- 6) For custom PowerPanel™, average working density = 707 kg/m³ at 30% moisture content.

PowerPanel™ Strength Properties

- 1) Characteristic Compressive Strength or AAC, $f'_m = 2.8$ MPa.
- 2) Average Compressive Strength of AAC = 4.0 MPa.
- 3) Characteristic Modulus of Rupture, $f'_{ut} = 0.60$ MPa.

PowerPanel™ Acoustic Properties

- 1) Panel only with no plasterboard or other lining $R_w = 36$ dB, $R_w + C_{tr} = 33$ dB (refer to acoustic test ATF-676).

PowerPanel™ Thermal Properties

- 1) R-Value of PowerPanel® with no plasterboard or other lining = 0.51 m²K/W (4% moisture content).

Fire Hazard Indices

Hebel® AAC products have BCA Group Number 1 and also the following early fire hazard indices, determined in accordance with AS1530.3:1990:

Ignitability Index:	0
Spread of Flame Index	0
Heat Developed Index	0
Smoke Developed Index	0-1

Fire Resistance Level (FRL) Ratings

For fire performance characteristics of the Hebel® Facade Wall System, refer to Section 7.0 of this publication.

Appendix B – Architectural Specification

This specification should be adopted as a guide only, and shall be superseded by the contract specifications of the project.

* Insert or select appropriate specifications.

This information can be downloaded from the Hebel® Website – www.hebelaustralia.com.au

Scope

The contractor shall furnish all material and equipment required to

satisfactorily complete the installation and jointing of the Hebel® Facade Wall Systems where indicated in the contract specification and/or on the layout drawings.

Materials

All AAC material shall be Hebel® PowerPanel™ as manufactured by CSR Panel Systems. Screws for fixing Hebel® PowerPanel™ shall be supplied, manufactured or approved by CSR Panel Systems.

Steel frame components shall be those

manufactured by Rondo Building Services Pty Ltd.

All lining materials, fixings and finishing products shall be those manufactured and/or supplied by CSR Gyprock. Plasterboard shall be manufactured to meet the dimensional requirements of AS/NZS2588 'Gypsum Plasterboard'.

All infill material shall be those manufactured and/or supplied by CSR Bradford.

Non-Fire Rated Hebel® Facade Wall System

The contractor shall supply and install the non-loadbearing Hebel® Facade Wall System *N°.....(.....), as detailed in the project drawings and or specifications, in accordance with Hebel® Facade Design and Installation Guides, HE302DG and HE302IG.

The Hebel® Facade Wall System framing, fixing and joints shall be designed and installed to comply with the requirements for an *Ultimate Design Wind Pressure* of *.....kPa maximum/minimum.

Installation shall be carried out to the level specified for a field acoustic performance of *R'w..... using cavity infill of *Bradford (or products of equivalent or better performance).

All movement joints shall be caulked with *..... backing rod and *..... sealant installed in accordance with the sealant manufacturer’s recommendations.

OR

Fire Rated Hebel® Facade Wall System

The contractor shall supply and install the non-loadbearing Hebel® Facade Wall System *N°..... (.....), as detailed in the project drawings and or specifications, in accordance with Hebel® Facade Design and Installation Guides, HE302DG and HE302IG.

The Hebel® Facade Wall System framing, fixing and joints shall be designed and installed to comply with the requirements for an *Ultimate Design Wind Pressure* of *.....kPa maximum/minimum.

The wall shall have a Fire Resistance Level rating of *FRL / / for an external fire source, and/or *FRL / / for an internal fire source, in accordance with the requirements of AS1530.4.

Installation shall be carried out to the level specified for a field acoustic

performance of *R'w..... using cavity infill of *Bradford

All movement joints shall be caulked with *..... backing rod and *..... sealant installed in accordance with the sealant manufacturer’s recommendations.

Lightweight Steel Framing

Wall framing shall consist of *Rondo lipped steel studs* *.....x..... mm BMT installed at *.....mm maximum centres into deflection head tack (top) *.....x..... mm BMT and bottom track *.....x.....mm BMT.

Top hat framing shall consist of *Hebel® Facade 50 x 35 x 0.75mm BMT top hats installed at *.....mm maximum centres.

Fixings

Screws to fix the Hebel® PowerPanel™ to the top hat shall be *..... and *Class.....

Screws to fix the top hats to the stud framing shall be *..... and *Class.....

Screws to assemble the stud framing shall be *..... and *Class

Wall Wrap

The wall wrap shall be *Tyvek® Homewrap®*. Fixing, jointing and sealing shall be designed and installed in accordance with the manufacturer’s instructions, to comply with the requirements for an *Ultimate Design Wind Pressure* of *.....kPa maximum/minimum.

Internal Plasterboard Lining

For non fire rated wall systems, the framing shall be lined on the internal side with one layer of *.....mm Gyprock® *..... plasterboard,

OR

For fire rated wall systems, the framing shall be lined on the internal side with one layer of *.....mm Gyprock® *..... plasterboard, * followed by a second layer ofmm Gyprock® plasterboard.

All layers shall be fixed and caulked as specified for the relevant system in the Gyprock® Steel Frame Wall System Installation Guide, N°GYP544, other relevant CSR Gyprock Technical Literature, and Rondo Building Services literature.

Levels of Finish – Internal

All framing, plasterboard lining, jointing and finishing shall be carried out to *Level..... Level of Finish, in accordance with Gyprock® Residential Installation Guide, N°GYP547 and/ or AS/NZS2589.1 ‘Gypsum Linings in Residential and Light Commercial Construction - Application and Finishing’.

Hebel® Facade Finishing

All screw heads in the Hebel® PowerPanel™ shall be covered with *Hebel® Adhesive/Hebel® Patch, and shall be sanded flush with the panel surface.

Hebel® Facade Wall Systems shall be externally coated with *..... coating system, which shall be applied to the manufacturer’s recommendations.

Apply primers and prepare surfaces in accordance with the manufacturers specifications prior to application of coatings and sealants. Confirm compatibility before specifying.