



BRANZ Appraised
Appraisal No. 1027 [2018]

USG BORAL HANDYBOARD™ GENERAL WALL LINING

Appraisal No. 1027 [2018]



BRANZ Appraisals

Technical Assessments of products for building and construction.



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Product

- 1.1 USG Boral Handyboard™ is a general, interior wall lining plasterboard.

Scope

- 2.1 USG Boral Handyboard™ has been appraised for use as an internal wall lining on timber and steel framing in new and existing buildings. The product is for use in situations where non-structural (non-bracing), non-fire-rated and acoustically un-rated interior linings are specified. USG Boral Handyboard™ must remain dry throughout its serviceable life.

Building Regulations

New Zealand Building Code (NZBC)

- 3.1 In the opinion of BRANZ, USG Boral Handyboard™, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. USG Boral Handyboard™ meets the requirements for loads arising from self-weight and impact [i.e. B1.3.3 (a) and (j)]. See Paragraph 9.1.

Clause B2 DURABILITY: Performance B2.3.1 (c) 5 years. USG Boral Handyboard™ meets this requirement. See Paragraphs 10.1 - 10.4.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. USG Boral Handyboard™ meets this requirement and will not present a health hazard to people.



Technical Specification

4.1 USG Boral Handyboard™ is a paper-bound, modified gypsum-plaster core sheet lining material. Handyboard™ sheets are 10 mm thick, 1200 mm wide by 2400 mm long, 1200 mm wide by 1800 mm long or 900 mm wide by 1200 mm long. The two long edges are recessed for the application of stopping compounds. The nominal sheet weight of USG Boral Handyboard™ is 6.5 kg/m². USG Boral Handyboard™ face paper is buff in colour.

USG Boral Accessories and USG Boral Jointing Compounds,

4.2 As specified in the Technical Literature.

Components and Accessories

4.3 System components and accessories for USG Boral Handyboard™, which are supplied by the building contractor are:

Fasteners

4.4 Minimum screw sizes are as follows:

- 25 mm x 6 g drywall, gold passivated, bugle head, coarse thread screw with an 8 mm head for fixing to timber framing.
- 25 mm x 6 g drywall, gold passivated, bugle head, fine thread screw with an 8 mm head for fixing to steel framing.

Adhesive

4.5 Adhesive must comply with AS 2753 for adhering plasterboard to timber and steel framing.

Finishes

4.6 Finishes such as paints and wallpapers have not been assessed and are outside the scope of this Appraisal.

Handling and Storage

5.1 The best results are achieved when USG Boral Handyboard™ is treated as a finishing material and protected from damage. Sheets must be stacked flat and kept dry at all times. For limits on stack heights see the Technical Literature. Sheets must be carried on edge and not dragged.

5.2 All accessories must be kept dry.

Technical Literature

6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for USG Boral Handyboard™. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

Framing

7.1 Timber wall framing behind USG Boral Handyboard™ must be treated as required by NZBC Acceptable Solution B2/AS1.

7.2 Supporting framing must comprise one of the following subject to the minimum sizes, dwang centres and all other frame requirements of the USG Boral Handyboard™ Technical Literature:

- Timber framing must be designed and constructed in accordance with NZS 3604, or to a specific design using NZS 3603 and AS/NZS 1170.
- Steel framing must be designed and constructed in accordance with NASH Standard, or to a specific engineering design meeting the requirements of the NZBC, with studs at maximum 600 mm centres.

7.3 Refer to Paragraph 15.2 regarding recommended moisture content of timber framing.



General

- 8.1 USG Boral Handyboard™ provides a flat surface for the application of decorative surface finishes such as paint and wallpaper.
- 8.2 USG Boral Handyboard™ must not be used in the following situations:
- For bracing applications
 - In wet areas such as bathrooms and kitchens
 - Where a fire resistance rating (FRR) is required
 - Where an acoustic rated system is specified.
 - Applied directly to masonry, concrete or solid plaster.
 - Used externally of the building envelope.
 - Exposed to temperatures of 52°C or greater for prolonged periods. [Refer to appliance and fitting manufacturers for installation details.]

Structure

Impact Resistance

- 9.1 USG Boral Handyboard™ provides adequate resistance to soft body impacts expected in areas where the product will be used.

Durability

- 10.1 With normal maintenance, USG Boral Handyboard™ will meet the performance requirement of NZBC B2.3.1 [c], 5 years as given in Table 1 of NZBC Acceptable Solution B2/AS1.

Serviceable Life

- 10.2 USG Boral Handyboard™ is expected to have a serviceable life of at least 15 years as a general wall lining. The ability of USG Boral Handyboard™ to remain durable is dependent on the sheets being protected and remaining dry in service and being maintained in accordance with this Appraisal.

Maintenance

- 10.3 The building must be maintained weathertight and all lining systems protected from internal and external moisture.
- 10.4 Impact damage to USG Boral Handyboard™, resulting in small holes and cracks, may be patched, stopped and finished. For larger areas of damage, expert advice on repair must be sought from USG Boral Building Products NZ.

Prevention of Fire Occurring

- 11.1 Separation or protection must be provided to USG Boral Handyboard™ from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 – C/AS6 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

Fire Affecting Areas Beyond the Fire Source

Internal Surface Finishes

- 12.1 USG Boral Handyboard™ does not have a Material Group Number. When an applied finish is applied over USG Boral Handyboard™, the Material Group Number must be obtained from the manufacturer or supplier of the finish product or system, for the complete lining system. USG Boral Handyboard™ can be used as internal surface linings where permitted by NZBC Performance Clause C3.4 [a].
- 12.2 In buildings with a SH Risk Group classification, there are no internal surface finish requirements for USG Boral Handyboard™ [with or without an applied finish] unless foamed plastics building materials or combustible insulating materials form part of the wall system.

Internal Moisture

- 13.1 USG Boral Handyboard™ is for use in dry internal situations and must not be used in wet areas.



Installation Information

Installation Skill Level Requirement

14.1 Installation of USG Boral Handyboard™ must be in accordance with the instructions given in this Appraisal and the Technical Literature. Where the installation is Restricted Building Work (RBW), the installation must be completed by, or under the supervision of, a Licenced Building Practitioner with the relevant Licence Class.

General

15.1 USG Boral Handyboard™ must be installed in accordance with the Technical Literature. For inspection, reference must be made to the Technical Literature.

Framing

15.2 To achieve an acceptable decorative finish, the walls must not be lined unless the moisture content of timber framing is less than 18%. USG Boral Building Products NZ recommend a moisture content of 8–12% where buildings are to be air conditioned or centrally heated.

Cutting

15.3 USG Boral Handyboard™ is easily cut by scoring the face paper with a sharp short-bladed trimming knife, and then snapping the plasterboard away from the cut face and cutting the back paper, or by sawing. Use of a metal straightedge facilitates clean straight cuts. Cut edges can be tidied up by using a knife. Paper dags should be removed.

Fixing Sheets

15.4 USG Boral Handyboard™ sheets may be installed vertically or horizontally. Sheets are fixed with drywall screws at 300 mm centres around the perimeter of the sheet, and with adhesive on all intermediate studs and dwangs. Adhesive must not be used under fasteners. A 5–10 mm gap must be left between the floor and the bottom of the sheet.

Penetrations and Sealants

15.5 All cut-outs for penetrations must be made neatly using a hole saw. Cut-outs should be made approximately 12 mm diameter greater than the penetrations.

Jointing and Finishing

15.6 Jointing and finishing must be carried out in accordance with the Technical Literature.

Health and Safety

16.1 Dust resulting from the sanding of stopping and finishing compounds may be a respiratory irritant, and the use of a suitable facemask is recommended.

Basis of Appraisal

The following is a summary of the technical investigations carried out.

Tests

17.1 USG Boral Handyboard™ has been assessed for the following properties: dimensional properties, flexural strength, nail pull resistance, edge and field hardness, and humidified deflection.

Investigations

18.1 The Technical Literature has been examined by BRANZ and found to be satisfactory.

18.2 Site visits were carried out by BRANZ to assess the practicability of the installation of the systems, and to view completed installations.

18.3 An assessment was made of the durability of the systems by BRANZ technical experts and found to be satisfactory.



Quality

- 19.1 The manufacture of USG Boral Handyboard™ has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory. BRANZ undertakes an ongoing review of product quality on an inwards goods basis.
- 19.2 USG Boral Building Products NZ is responsible for the quality of the product supplied.
- 19.3 The quality of the application and finish on-site is the responsibility of the installation, stopping and finishing contractors.
- 19.4 Designers are responsible for the design of buildings.
- 19.5 Building owners are responsible for the maintenance in accordance with the instructions of USG Boral Building Products NZ.

Sources of Information

- AS/NZS 1170: 2002 Structural design actions.
- AS/NZS 2588: 1998 Gypsum Plasterboard.
- NASH Standard Residential and Low-rise Steel Framing, Part 1: Design Criteria Version 2: October 2010.
- NZS 3603: 1993 Timber structures standard.
- NZS 3604: 2011 Timber-framed buildings.
- Ministry of Business, Innovation and Employment Record of Amendments for Compliance Documents and Handbooks.
- The Building Regulations 1992.



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In the opinion of BRANZ, **USG Boral Handyboard™ General Wall Lining** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **USG Boral Building Products NZ**, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
2. **USG Boral Building Products NZ:**
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions;
 - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by **USG Boral Building Products NZ**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **USG Boral Building Products NZ** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

20 July 2018