



BRANZ Appraised
Appraisal No. 575 [2019]

GORILLA GRIP ADHESIVES

Appraisal No. 575 [2019]

This Appraisal Replaces BRANZ
Appraisal No. 575 [2014]



BRANZ Appraisals

Technical Assessments of
products for building and
construction.



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Product

- 1.1 Gorilla Grip Adhesives are one component, specially formulated, polyurethane based construction adhesives for adhering plasterboard to framing. The Gorilla Grip 1 Hour Cure is a faster curing form of Gorilla Grip Adhesives.

Scope

- 2.1 Gorilla Grip Adhesives have been appraised for use as construction adhesives when bonding plasterboard wall and ceiling linings to the following materials:

| Substrate | Plasterboard | Wet Area Plasterboard |
|---------------------------|--------------|-----------------------|
| Dry Timber | ✓ | |
| H1.2 Boron Treated Timber | ✓ | |
| H3.1 LOSP Treated Timber | ✓ | |
| H3.2 ACQ Treated Timber | ✓ | ✓ |
| H3.2 CCA Treated Timber | ✓ | |

- 2.2 Gorilla Grip Adhesives have not been appraised as structural adhesives for structural NZBC applications. Structural connections for carrying and resisting imposed loads, such as wind and earthquake, must still be designed using mechanical fasteners.

Building Regulations

New Zealand Building Code (NZBC)

- 3.1 **The use of Gorilla Grip Adhesives itself is not within the scope of the NZBC, however, the use of building elements or components such as wall or ceiling panels where the adhesive is used is controlled by the NZBC. Therefore, in the opinion of BRANZ, Gorilla Grip Adhesives, if used, installed and maintained in accordance with the statements and conditions of this Appraisal, will contribute to meeting the following provisions of the NZBC:**

Clause B1 Structure: Performance B1.3.1, B1.3.2 and B1.3.4. Gorilla Grip Adhesives contribute to meeting the requirements for loads arising from self-weight, imposed gravity loads arising from use, impact, and time dependent effects including creep and shrinkage [i.e. B1.3.3 (a), (b), (j) and (q)]. See Paragraph 8.1.

Clause B2 Durability: Performance B2.3.1 (b), 15 years and B2.3.1 (c), 5 years. Gorilla Grip Adhesives meet these requirements. See Paragraphs 9.1 – 9.2.

Clause F2 Hazardous Building Materials: Performance F2.3.1. Gorilla Grip Adhesives meet this requirement and will not present a health hazard to people.

Technical Specification

Gorilla Grip Adhesives

- 4.1 Gorilla Grip 1 Hour Cure and Gorilla Grip 2 Hour Cure are one component, specially formulated, polyurethane based construction adhesives for plasterboard. Gorilla Grip 1 Hour Cure is a faster curing form of Gorilla Grip Adhesives.
- 4.2 Maximum bond strength of Gorilla Grip Adhesives will be achieved in approximately 7 days.

Packaging, Handling and Storage

- 5.1 Gorilla Grip 2 Hour Cure comes in 80 ml tubes, 310 ml cartridges and 600 ml sausages with Gorilla Grip 1 Hour Cure being available in 310 ml cartridges only.
- 5.2 The tubes, cartridges and sausages of Gorilla Grip Adhesives should be handled with care to prevent damage during transport, and should be stored in the temperature range of 5°C - 25°C.
- 5.3 The shelf life of Gorilla Grip Adhesives is 12 months.

Technical Literature

- 6.1 Refer to the Appraisals listing on the BRANZ Website for details of the current Technical Literature for Gorilla Grip Adhesives. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained within the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

General

- 7.1 Gorilla Grip Adhesives are suitable for use in indoor applications.
- 7.2 Gorilla Grip Adhesive type products are not referenced in the NZBC, but they can be used to help increase the stiffness and rigidity of systems, to help prevent movement at sheet edges, and to reduce the number of fasteners needed in non-structural situations.
- 7.3 Gorilla Grip Adhesives are not recommended for bonding impervious surfaces to each other, i.e. at least one material to be bonded should be porous.
- 7.4 Gorilla Grip Adhesives must not be used to replace mechanical fixings where these have been specified by the manufacturer of the material being adhered. Lining materials used in loadbearing, bracing or some other form of specifically designed lining system (e.g. fire resistant or acoustically insulated) must be installed in accordance with the respective manufacturer's instructions.
- 7.5 Shrinkage of framing or substrate materials, e.g. timber studs, will place stress on the bond line of the glued joint. In order to minimise shrinkage of materials that could possibly cause failure of the glued joint and/or aesthetic damage to lining materials, the moisture content of timber, or other material being bonded, must not exceed the maximum limitations stated by either the manufacturer of that material, or the maximum moisture contents stated in NZBC Acceptable Solution E2/AS1, Paragraph 10.2, whichever is the lesser. Due allowance for shrinkage and/or expansion of lining and substrate materials must be made.
- 7.6 Materials must not be glued over structure control joints.
- 7.7 Due to the degree of mechanical fastenings required within the body of the plasterboard, framing alignment is critical.

Structure

General

- 8.1 When Gorilla Grip Adhesives are used to adhere building materials as stated under the scope above, and when used in accordance with the statements and conditions of this Appraisal, the bond line will have sufficient strength and stability to resist the elemental forces these materials will be subjected to, such as the material self-weight, light impact loads, and typical thermal and structural movement stresses.

Durability

Serviceable Life

- 9.1 Gorilla Grip Adhesives are expected to have a serviceable life of at least 15 years.
- 9.2 This Appraisal covers cured Gorilla Grip Adhesives only, and not the materials being bonded, which must also meet the relevant requirements of NZBC Clause B2.
- 9.3 The serviceable temperature of the system will be limited by the plasterboard manufacturers' specification.

Maintenance

- 10.1 Materials being adhered must be maintained as per the manufacturers' instructions. No maintenance of the adhesive is required.

Prevention of Fire Occurring

- 11.1 Separation or protection must be provided to Gorilla Grip Adhesives 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.

Installation Information

Installation Skill Level Requirement

- 12.1 Gorilla Grip Adhesives are for use by general tradespersons and handypersons.

General

- 13.1 Proprietary lining materials based on materials covered by the scope of this Appraisal, i.e. gypsum plasterboard, must be installed in accordance with the respective manufacturer's written instructions. *[Note that many manufacturers of proprietary materials have specific fixing requirements for their materials, which have been developed after extensive product development, testing and on-going assessment of history of performance.]*
- 13.2 All surfaces to be bonded should be free of any foreign material that will impair adhesion.
- 13.3 Gorilla Grip Adhesives may be applied within the temperature range of 5°C to 35°C. The open time for Gorilla Grip 2 Hour Cure is 30 minutes and Gorilla Grip 1 Hour Cure is 10 minutes, however this will vary with temperature, and will typically be shorter for higher temperatures and longer for lower temperatures.
- 13.4 To apply the Gorilla Grip Adhesives the user should cut the nozzle tip on a slant to provide a 10 mm bead and cut off the top of the threaded spout. Apply a continuous bead of adhesive or spots to the surface to be bonded. Where sheets butt on a stud, apply a zigzag bead to ensure the adhesive contacts both sheets. The two materials are then assembled together using sufficient nails, screws, temporary bracing or clamps to achieve contact over the total bond area. This will generally be at a maximum of 600 mm centres on the intermediate supports. The adhesive must be allowed to dry for a minimum of 24 hours before removing any temporary fasteners, supports or clamps. Maximum bond strength will be achieved in approximately 7 days.
- 13.5 Clean tools and remove excess adhesive with Soudal® Bulldog® Aluminium Powder Coat Cleaner, exercising safe practices.

Health and Safety

- 14.1 Gorilla Grip Adhesives are 100% solids polyurethane based adhesives. Gorilla Grip Adhesives cartridges must be kept away from children. If ingested, medical attention must be sought immediately.
- 14.2 Appropriate precautions must be taken when using Gorilla Grip Adhesives to ensure good ventilation, especially in confined spaces.



Basis of Appraisal

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

Tests

- 15.1 The following testing has been completed by BRANZ:
- Testing of Gorilla Grip Adhesives in accordance with AS 2753 – 1985 has been carried out by BRANZ to determine amongst other things: bond strength; bond maintenance; bridging characteristics; and flexibility after heat aging.

Other Investigations

- 16.1 Gorilla Grip Adhesives are manufactured by Soudal NV in Belgium. They are based on Soudal's Purocol and Purocol Express formulations. The performance of Purocol and Purocol Express manufactured by Soudal in Europe since 1989 has been considered.
- 16.2 Assessment has been made of the structural aspects and durability of the system and opinions given by BRANZ technical experts.
- 16.3 The manufacturer's Technical Literature has been examined by BRANZ and found to be satisfactory.

Quality

- 17.1 The manufacture of Gorilla Grip Adhesives 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.
- 17.2 Quality of supply of the product is the responsibility of Soudal Ltd.
- 17.3 Quality of installation of the product on site is the responsibility of the person using the adhesive.

Sources of Information

- AS 2753: 1985 Adhesives – Mastic – For bonding gypsum plaster linings to wood and metal framing members.
- NZS 3640: 2003 Chemical Preservation of Round and Sawn Timber.
- Ministry of Business, Innovation and Employment Record of amendments - Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.



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In the opinion of BRANZ, **Gorilla Grip Adhesives** 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 **Soudal Ltd**, 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. **Soudal Ltd**
 - 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 **Soudal Ltd**.
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 **Soudal Ltd** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

09 May 2019