

## HOLDFAST® GORILLA NAILPOWER FR DATA SHEET

**Product Code:** 20169 (750ml)  
**Product Name:** HOLDFAST® Gorilla Nailpower FR

### Description

HOLDFAST® Gorilla Nailpower FR is a single-component, self expanding, ready to use polyurethane foam with propellants which are completely harmless to the ozone layer. It has a fire rating of up to 360 minutes in certain configurations.

### Characteristics

- Fire retardant up to 360 minutes
- Efficient seal against smoke and gas
- Does not contain CFC's and H-CFC's
- Excellent adhesion on most substrates (except Teflon, PE and PP)
- High thermal and acoustical insulation
- High bonding strength
- Very good filling characteristics
- Excellent stability: No shrink or post expansion
- Can be painted after full cure



### Technical Data

|   |  |
|---|--|
| <i>Base:</i>                              | Polyurethane   |
| <i>Consistency:</i>                       | Stable Foam  |
| <i>Curing System:</i>                     | Moisture-cure  |
| <i>Skin formation – (20°C/65 % R.H.):</i> | Ca 10 minutes  |
| <i>Drying time – (20°C/65 % R.H.):</i>    | Tackfree after 25 minutes                              |
| <i>Curing rate – (20°C/65 % R.H.):</i>    | 2 H for a 30mm bead                                    |
| <i>Yield:</i>                             | 100ml yields ca 35 L cured foam when extruded in beads |
| <i>Colour:</i>                            | Light red  |
| <i>Cellular structure:</i>                | >70 % closed cells, fine cellular structure            |
| <i>Specific Gravity:</i>                  | Ca. 25 kg/m <sup>3</sup> extruded, fully cured         |
| <i>Temperature resistance:</i>            | -40°C to +90°C when cured                              |
| <i>VOC (%)</i>                            | 23%  |
| <i>VOC (g/litre)</i>                      | 189  |

### Applications

- Fire retardant installation of window and door frames
- Fire and smoke retardant sealing of connections between partition walls, ceilings and floors
- Filling of cavities
- Sealing of all openings in roof constructions
- Sealing of cable and pipe penetrations
- Creating of sound-proof screen
- Bonding of insulation materials
- Application of sound-deadening layers
- Improving thermal insulation in cold store areas

### Appearance

*Colour:* Light Red  
*Packaging:* 750ml Aerosol Can

### Shelf Life

Nine months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C.

Always store can with the valve pointed upwards.

### Application

**Method:** Shake the aerosol can for at least 20 seconds. Put the adapter on the valve. Moisten surfaces with a water sprayer prior to application. The aerosol can be used in all direction. Remove pressure from the applicator to stop. Fill holes and cavities for 80%, as the foam will expand.  
Repeat shaking regularly during application. If you have to work in layers, repeat moistening after each layer. Cured foam can only be removed mechanically. Working temperature 5°C to 35°C. (20°C - 25°C recommended).

**Remarks**

- Cured PU-foam must be protected from UV-radiation by painting or applying a top layer of sealant (silicone, MS Polymer, acrylic and PU-sealant)

**Approvals**

- Test Report 9279 – University Ghent to NBN 713.020, En 1366-4
- Test Report 13492 – University of Ghent / Warringtonfire
- UK: BS476:Part20:1987 – WFRC N° C113610
- France: Rapport d’Essai RS00-067
- Holland: NEN 6069:1997 – TNO Rapprt 2000-CVB-R00703
- Belgium: NBN 713.020 – Test Report 9297 – University of Ghent
- Italy: CSI 1125 RF
- BS 476: Part 20-Warrington Fire Research Report 113610
- France: CSI Report 1125RF
- Australia WFR A Report 45717 to AS1530.4 and AS 4072.1
- Various applications with fire doors
- **BRANZ TESTED - #FAR 2330 Penetrations and closures in fire rated wall systems**

**Test Results: Test Report 9297C – University of Ghent**

| Wall Thickness | Joint Dimension              | Backing Material | Flame Resistance in Minutes       |
|----------------|------------------------------|------------------|-----------------------------------|
| 200mm          | Width: 11mm<br>Depth: 200mm  | None             | 229 Minutes<br>Fire Rating EI 180 |
| 200mm          | Width: 41mm<br>Depth: 200 mm | None             | 110 Minutes<br>Fire Rating EI 90  |
| 100mm          | Width: 30mm<br>Depth: 100mm  | None             | 50 Minutes<br>Fire Rating EI 45   |
| 100mm          | Width: 10mm<br>Depth: 100mm  | None             | 103 Minutes<br>Fire Rating EI 90  |

**Test Results: Test Report 13492A – University of Ghent 2008**

| Wall Thickness | Joint Dimension              | Backing Material | Flame Resistance in Minutes |
|----------------|------------------------------|------------------|-----------------------------|
| 200mm          | Width: 30mm<br>Depth: 200mm  | None             | 158 Minutes                 |
| 200mm          | Width: 10mm<br>Depth: 200 mm | None             | >240 Minutes                |

**Test Results: University of Ghent  
Fire Doors**

| Type of door               | Rf value   | Benor/ATG Certificate | Tests      |
|----------------------------|------------|-----------------------|------------|
| Bruynzeel                  | 30 Minutes | 00/2186               | 2000 Ghent |
| De Coene                   | 30 Minutes | 02/1639               | 2002 Ghent |
| General for Fire doors     | 30 Minutes | 01/2287               | 2001 Ghent |
| Vernimetal Metal doorframe | 30 Minutes | In finalisation       | 2003 Ghent |

**Test Results: Test Report 13492A - University of Ghent 2008  
Product Combinations – Vertical Joints**

| Product Tested                                      | Wall Thickness | Joint Dimension                              | Backing Material | Flame Resistance in Minutes |
|---|----------------|--|------------------|-----------------------------|
| a.Firecryl (20060, 21427)<br>b. Gorilla® Nailpower® | 200mm          | a.Width: 25mm<br>Depth: 25mm<br>b.Width:25mm | None             | >240 Minutes                |

|   |       |  |      |              |
|---|-------|--|------|--------------|
| FR Click&Fix (20160, 20169)   |       | Depth: 175mm   |      |              |
| a.FixAll Firestop MS (56129)<br>b. Gorilla® Nailpower®<br>FR Click&Fix (20160, 20169)<br>c. Firecryl (20060, 21427) | 200mm | a.Width: 40mm<br>Depth: 20 mm<br>b.Width: 40mm<br>Depth: 150 mm<br>c.Width: 40mm<br>Depth: 30 mm | None | >240 Minutes |

**Test Results: Test Report 13492A - University of Ghent 2008  
Product Combinations – Horizontal Joints**

| Product Tested  | Wall Thickness | Joint Dimension   | Backing Material | Flame Resistance in Minutes |
|---|----------------|---|------------------|-----------------------------|
| a.Firecryl (20060, 21427)<br>b. Gorilla® Nailpower®<br>FR Click&Fix (20160, 20169)    | 200mm          | a.Width: 15mm<br>Depth: 15mm<br>b.Width:25mm<br>Depth: 175mm    | None             | >240 Minutes                |
| a.FixAll Firestop MS (56129)<br>b. Gorilla® Nailpower®<br>FR Click&Fix (20160, 20169) | 200mm          | a.Width: 25mm<br>Depth: 20 mm<br>b.Width: 40mm<br>Depth: 180 mm | None             | >240 Minutes                |

**Test Results: Fire Test CSTB – 10 May 2000 France**

| Wall Thickness | Joint Dimension             | Backing Material | Flame Resistance in Minutes |
|----------------|-----------------------------|------------------|-----------------------------|
| 200mm          | Width: 10mm<br>Depth: 200mm | None             | 360 Minutes                 |
| 200mm          | Width: 20mm<br>Depth: 200mm | None             | 360 Minutes                 |
| 200mm          | Width: 30mm<br>Depth: 200mm | None             | 291 Minutes                 |
| 200mm          | Width: 40mm<br>Depth: 200mm | None             | 218 Minutes                 |

**Test Results: CSI 1125 RF 2004 - Italy**

| Wall Thickness | Joint Dimension              | Backing Material | Flame Resistance in Minutes |
|----------------|------------------------------|------------------|-----------------------------|
| 200mm          | Width: 30mm<br>Depth: 200mm  | None             | 120 Minutes                 |
| 200mm          | Width: 10mm<br>Depth: 200 mm | None             | 180 Minutes                 |
| 100mm          | Width: 10 mm<br>Depth: 100mm | None             | 90 Minutes                  |

**Limitation**

- As some timber treatments contain wax it is recommended that the surface of these timbers is activated with Holdfast® Surface Activator before application of adhesive.

**Health and Safety Recommendation**

- Apply the usual industrial hygiene
- Wear gloves and safety goggles
- Remove cured foam by mechanical means only, never burn away
- Please refer to the MSDS for more detailed information.

**Remark**

*The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our*

*control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments. If any clarification is required please contact Holdfast Technical Services or email [sales@holdfast.co.nz](mailto:sales@holdfast.co.nz).*

**Last Updated:** 15<sup>th</sup> June 2010