# PRODUCT SPECIFICATION SHEET
## BELZONA 2131
### FN10181

## GENERAL INFORMATION

**Product Description:**
Two component, durable and abrasion resistant, fluid grade elastomeric system designed for coating, surfacing, casting and tooling applications.

**Application Areas:**
When mixed and applied as detailed in the Belzona Instructions for Use (IFU), the system is ideally suited for application to the following:

- Surfacing pumps
- Casting flexible molds
- Repairing diaphragms
- Casting shock absorbers
- Replacing drive couplings
- Casting guide bearings

## APPLICATION INFORMATION

<table>
<thead>
<tr>
<th>Application Methods</th>
<th>Base Component</th>
<th>Solidifier Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicator</td>
<td>Appearance</td>
<td>Pale straw colored viscous liquid</td>
</tr>
<tr>
<td>Spatula</td>
<td>Density</td>
<td>1.1 – 1.2 g/cm³</td>
</tr>
<tr>
<td>Brush</td>
<td>Viscosity</td>
<td>190-330 P at 77°F/25°C</td>
</tr>
<tr>
<td>Pouring</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working Life</th>
<th>Mix Ratio (base:solidifier)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The working life will vary according to temperature. At 68°F/20°C the usable life of mixed material will typically be 12 minutes. Consult the Belzona IFU for specific details.</td>
<td>Mixing Ratio by Weight (Base : Solidifier) 3.4 : 1</td>
</tr>
<tr>
<td>Cure Time</td>
<td>Mixing Ratio by Volume (Base : Solidifier) 3.2 : 1</td>
</tr>
<tr>
<td>Cure times will vary depending on ambient conditions; consult the Belzona IFU for specific details.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume Capacity</th>
<th>Mixed Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>The volume capacity of mixed material will be 886cm³/kg 443cm³ per 500g unit.</td>
<td>Appearance Black liquid</td>
</tr>
<tr>
<td>Density 1.13 g/cm³</td>
<td>10mil/250μm maximum</td>
</tr>
<tr>
<td>Sag Resistance</td>
<td>0.25% / 2.85 g/L</td>
</tr>
<tr>
<td>VOC content (ASTM D2369/EPA ref 24)</td>
<td></td>
</tr>
</tbody>
</table>

The above application information serves as introductory guide only. For full application details including the recommended application procedure/technique, refer to the Belzona IFU which is enclosed with each packaged product.
**PRODUCT SPECIFICATION SHEET**
**BELZONA 2131**
**FN10181**

---

**ABRASION**

**Taber**
When determined in accordance with ASTM D4060 using H18 wheels and 1kg load, the sliding Taber abrasion resistance will be:

- **Dry**
  30 mm² loss per 1000 cycles (7 day cure at 68°F/20°C)

- **Wet**
  30 mm² loss per 1000 cycles (7 day cure at 68°F/20°C)

---

**ADHESION**

**90° Peel Adhesion**
When tested in accordance with ASTM D429 (modified), typical adhesion values achieved when the material is used in conjunction with the designated surface and recommended surface conditioner will be:

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Peak Adhesion</th>
<th>Failure Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grit Blasted</td>
<td>186 psi</td>
<td>Tape Failure</td>
</tr>
<tr>
<td>Mild Steel</td>
<td>3320 kg/m</td>
<td></td>
</tr>
</tbody>
</table>

**180° Peel Adhesion**
When tested in accordance with ASTM D413, typical adhesion values achieved when the material is used in conjunction with the designated surface and recommended surface conditioner will be:

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Peak Adhesion</th>
<th>Average Peel Adhesion</th>
<th>Failure Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPDM (Shore A: 75)</td>
<td>20 pli</td>
<td>5 pli 90 kg/m</td>
<td>Cohesive in Substrate</td>
</tr>
<tr>
<td></td>
<td>350 kg/m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrile (Shore A: 77)</td>
<td>37 pli</td>
<td>21 pli 375 kg/m</td>
<td>Cohesive in Substrate</td>
</tr>
<tr>
<td></td>
<td>655 kg/m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neoprene (Shore A: 83)</td>
<td>28 pli</td>
<td>13 pli 230 kg/m</td>
<td>Cohesive in Substrate</td>
</tr>
<tr>
<td></td>
<td>510 kg/m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Rubber (Shore A: 51)</td>
<td>14 pli</td>
<td>4 pli 65 kg/m</td>
<td>Cohesive in Substrate</td>
</tr>
<tr>
<td></td>
<td>250 kg/m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Rubber (Natural/SBR) (Shore A: 72)</td>
<td>14 pli</td>
<td>9 pli 160 kg/m</td>
<td>Cohesive in Substrate</td>
</tr>
<tr>
<td></td>
<td>255 kg/m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insertion Rubber (commercial with textile reinforcement) (Shore A: 70)</td>
<td>21 pli</td>
<td>9 pli 155 kg/m</td>
<td>Cohesive in Substrate</td>
</tr>
<tr>
<td></td>
<td>375 kg/m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**CHEMICAL RESISTANCE**

Once fully cured, the material will demonstrate excellent resistance to a range of chemicals including; dilute inorganic acids and alkalis.

* For a more detailed description of chemical resistance properties, refer to relevant Chemical Resistance chart.

---

**COMPRESSION RESISTANCE**

When tested in accordance with BS 903 part A6, the compression set following a 30 minute recovery period will typically be 24%.

---

**ELECTRICAL PROPERTIES**

**Dielectric Strength**
When tested in accordance with ASTM D149 the dielectric strength will typically be 7.1 kV/mm when tested at 500 V/s.

**Dielectric Constant**
When tested in accordance with ASTM D150 the dielectric constant will typically be 5.02 when tested at 1.0 V and 100 Hz.

**Dissipation Factor**
When tested in accordance with ASTM D150 the dissipation factor will typically be 0.021 when tested at 1.0 V and 100 Hz.

**Surface Resistivity**
When tested in accordance with ASTM D257 the surface resistivity will typically be $7.66 \times 10^{12}$ Ω when tested at 500 V DC.

**Volume Resistivity**
When tested in accordance with ASTM D257 the volume resistivity will typically be $2.30 \times 10^{2}$ Ω·cm when tested at 500 V DC.

---

**ELONGATION & TENSILE PROPERTIES**

When tested in accordance with ASTM D412 (Die C) the tensile properties will typically be:

<table>
<thead>
<tr>
<th></th>
<th>24 hours at 68°F/20°C</th>
<th>7 days at 68°F/20°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tensile Strength</strong></td>
<td>2460 psi</td>
<td>2280 psi</td>
</tr>
<tr>
<td></td>
<td>17.0 MPa</td>
<td>15.7 MPa</td>
</tr>
<tr>
<td><strong>Tensile Modulus</strong></td>
<td>215 psi</td>
<td>205 psi</td>
</tr>
<tr>
<td></td>
<td>1.5 MPa</td>
<td>1.4 MPa</td>
</tr>
<tr>
<td><strong>Elongation</strong></td>
<td>500-600%</td>
<td>400-500%</td>
</tr>
</tbody>
</table>
# PRODUCT SPECIFICATION SHEET
## BELZONA 2131
### HARDNESS
<table>
<thead>
<tr>
<th>Shore A Hardness:</th>
<th>Tested in accordance with ASTM D2240 typical value will be:</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>(24 hour cure at 68°F/20°C)</td>
</tr>
<tr>
<td>93</td>
<td>(7 day cure at 68°F/20°C)</td>
</tr>
</tbody>
</table>

### TEAR STRENGTH
<table>
<thead>
<tr>
<th>Tear Strength</th>
<th>When tested in accordance with ASTM D624 will typically be:</th>
</tr>
</thead>
<tbody>
<tr>
<td>385 pli / 6875 kg/m</td>
<td>(24 hour and 7 day cure at 68°F/20°C)</td>
</tr>
</tbody>
</table>

### HEAT RESISTANCE
- **Dry**
  For many typical applications the product will be suitable for operation in dry conditions in the temperature range -40°F to 194°F (-40°C to 90°C).
- **Wet**
  For wet or immersed conditions the maximum service temperature is 104°F (40°C).

### SHELF LIFE
Separate base and solidifier components shall have a shelf life of 3 years from date of manufacture when stored in their original unopened containers between 41°F (5°C) and 86°F (30°C).
Belzona products are manufactured under an ISO 9001 Registered Quality Management System

Belzona 2131 is available from a network of Belzona Distributors throughout the world for prompt delivery to the application site. For information, consult the Belzona Distributor in your area.

Prior to using this material, please consult the relevant Safety Data Sheets.

Complete technical assistance is available and includes fully trained Technical Consultants, technical service personnel and fully staffed research, development and quality control laboratories.

The technical data contained herein is based on the results of long term tests carried out in our laboratories and to the best of our knowledge is true and accurate on the date of publication. It is however subject to change without prior notice and the user should contact Belzona to verify the technical data is correct before specifying or ordering. No guarantee of accuracy is given or implied. We assume no responsibility for rates of coverage, performance or injury resulting from use. Liability, if any, is limited to the replacement of products. No other warranty or guarantee of any kind is made by Belzona, express or implied, whether statutory, by operation of law or otherwise, including merchantability or fitness for a particular purpose.

Nothing in the foregoing statement shall exclude or limit any liability of Belzona to the extent such liability cannot by law be excluded or limited.

Copyright © 2016 Belzona International Limited. Belzona® is a registered trademark.

Belzona 2131 - Product Specification Sheet  www.belzona.com

Publication No. 04-11-16  Page 4 of 4