

# Belzona 3121

## (MR7)



## INSTRUCTIONS FOR USE

### 1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Apply ONLY to structurally sound surfaces and NEVER to existing timber roof insulation unless it is prefelted.

Optimum results are obtained on dry surfaces, but dampness can be tolerated.

**POROUS SURFACES** (Roofing Felt, Asphalt, Brick, Concrete and other porous or bituminous surfaces)  
All surfaces should be clean, firm and as dry as possible. Remove any chippings, loose pointing, cracked or flaking brickwork. Cut open (star cut) any blisters and bond these flat. On synthetic hot-melt pitches, carry out tests on small areas to check adhesion.

#### NON-POROUS SURFACES

Degrease galvanized steel and glass with **Belzona® 9111** (Cleaner/Degreaser) or any other effective cleaner which does not leave a residue e.g. methyl ethyl ketone (MEK). Wire brush metal surfaces and abrade with a coarse emery cloth. Sweep away debris and degrease again.

Apply **Belzona® 3121** as soon as possible after surface preparation.

Thoroughly abrade acrylic sheeting to produce a scored surface.

### 2. COMBINING THE REACTIVE COMPONENTS

Thoroughly stir the contents of the Base and Solidifier containers before use.

- Add the Solidifier container to the Base container, ensuring that the can is well drained.
- Mix until a consistent color is achieved, taking care to avoid air entrapment.
- From commencement of mixing, **Belzona® 3121** must be used within the following times:

Temperature of material	32°F (0°C)	50°F (10°C)	68°F (20°C)
Use all material within	110 min.	30 min.	15 min.

Provided the roof surface is cool, the usable life of **Belzona® 3121** can be extended by pouring the mixed material onto the roof surface immediately after mixing. Alternatively, the **Belzona® 3121** Base and Solidifier components can be kept cool prior to mixing using a cooler box or similar.

#### NOTE: MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 3121**, use:  
3.5 parts Base to 1 part Solidifier by volume, or  
2.7 parts Base to 1 part Solidifier by weight

### 3. APPLYING BELZONA® 3121

Remove standing water and dry the surface as well as possible. Apply **Belzona® 3121** as a two coat system, incorporating reinforcement in the first layer.

- Apply the first layer to the prepared surface, within the coverage rates quoted in Section 6.
- Immediately apply **Belzona® 9331** (MR7 Reinforcing Sheet), direct from the roll ensuring that the fibrous side is laid face down. Stipple the end of the sheet into the **Belzona® 3121**, gradually unroll the sheet to the correct length and cut.
- Carefully bed in the **Belzona® 9331** to ensure complete wetting, leaving a finish free from stretches, creases or air bubbles. This may best be achieved with a dry brush.
- At overlapped joints, apply a strip of **Belzona® 3121** to the edge of the **Belzona® 9331** to be overlapped. Apply the second length of **Belzona® 9331** so that an overlap of at least 0.5 in. (12.5 mm) is achieved. Bed this in as in (c), to achieve complete wetting.

e) Apply the second coat of **Belzona® 3121** as soon as it is possible to do so without disturbing the first layer. Do not exceed the maximum overcoating times shown below.

Substrate Temperature	32°F (0°C)	50°F (10°C)	68°F (20°C)	77°F (25°C)	86°F (30°C)
Maximum Overcoating Time	24 hrs	18 hrs	8 hrs	2 hrs	1 hr

If the maximum overcoating time is exceeded, condition the first layer with **Belzona® 3921** (GSC Surface Conditioner) and allow it to dry for at least 4 hours but no longer than 2 days, before applying the second layer of **Belzona® 3121**.

#### NOTES:

1. **Belzona® 3921** is a two-component material. Stir the contents of the Base can until a smooth consistency is achieved and then add the entire contents of the Solidifier can, stirring the mixture continuously until an even color is obtained. For mixing small quantities, a ratio of 5 parts Base to 2 parts Solidifier by volume should be used. The coverage rate should not exceed 80.0 sq.ft. (7.4 m<sup>2</sup>) per kg.
2. Mixing tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent e.g. MEK. Brushes and other application tools should be cleaned using a suitable solvent such as **Belzona® 9121**, MEK, acetone or cellulose thinners.

#### 4. COMPLETION OF THE MOLECULAR REACTION

**Belzona® 3121** is water resistant immediately after application, but the times taken to develop ultimate adhesive and mechanical properties are given below:

Ambient Temperature	68°F (20°C)	50°F (10°C)	32°F (0°C)
Time to develop ultimate properties	7 days	15 days	30 days

#### 5. REFURBISHMENT

Refurbishment of **Belzona® 3121** is possible at any time after the initial application. Remove surface contamination by washing with water and a scrubbing brush. Allow the surface to dry before applying **Belzona® 3921** and **Belzona® 3121** as in Section 3(e), or **Belzona® 3111** (Flexible Membrane). When applying **Belzona® 3121** over weathered **Belzona® 3111**, remove all surface contamination and apply **Belzona® 3921**, prior to applying **Belzona® 3121**.

#### 6. COVERAGE RATES

Theoretical coverage rate for a single layer:  
21 sq.ft. (2.0 m<sup>2</sup>) / liter at 15 mil d.f.t.

Practical coverage rates are given below.

Substrate	Coverage Rate per Liter	
	1st Layer	2nd Layer
Mineral Felt	12.5 sq.ft. (1.2 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )
Smooth Felt	20.0 sq.ft. (1.9 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )
Asphalt	20.0 sq.ft. (1.9 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )
Dechipped Surface	10.0 sq.ft. (0.95 m <sup>2</sup> )	17.5 sq.ft. (1.7 m <sup>2</sup> )
Smooth Concrete	17.5 sq.ft. (1.7 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )
Rough Concrete	12.5 sq.ft. (1.2 m <sup>2</sup> )	20.0 sq.ft. (1.9 m <sup>2</sup> )
Asbestos	17.5 sq.ft. (1.7 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )
Metals / Plastic	20.0 sq.ft. (1.9 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )
Glass	21.0 sq.ft. (2.0 m <sup>2</sup> )	21.0 sq.ft. (2.0 m <sup>2</sup> )

#### HEALTH & SAFETY INFORMATION

Please read and make sure you understand the relevant Material Safety Data Sheets.

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 © 2011 Belzona International Limited. Belzona® is a registered trademark.



ISO 9001:2008  
Q 09335  
ISO 14001:2004  
EMS 509612

Manufactured under an ISO 9000  
Registered Quality Management System



**BELZONA®**  
Repair • Protect • Improve