



BELZONA® 1821 (FLUID METAL)

INSTRUCTIONS FOR USE

1. SURFACE PREPARATION

- Brush away loose contamination and degrease with a rag soaked in **Belzona® 9111** (Cleaner/Degreaser) or any other effective cleaner which does not leave a residue e.g. methyl ethyl ketone (MEK).
- Select an abrasive to give the necessary standard of cleanliness and a minimum depth of profile of 3 mils (75 microns).
- Finally degrease again. Use clean rags to avoid spreading contamination.

WHERE BELZONA® 1821 SHOULD NOT ADHERE

Brush on a thin layer of **Belzona® 9411** (Release Agent) and allow to dry for 15-20 minutes before proceeding to step 2.

2. COMBINING THE REACTIVE COMPONENTS

Transfer the entire contents of the Solidifier can into the Base module. Mix thoroughly together to achieve a uniform material free of any streakiness.

NOTES:

1. MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 1821** use:

2 parts Base to 1 part Solidifier by volume

5.3 parts Base to 1 part Solidifier by weight

2. WORKING LIFE

From the commencement of mixing, **Belzona® 1821** must be used within the times shown below.

Temperature	41°F (5°C)	59°F (15°C)	77°F (25°C)
Use all material within	45 min.	25 min.	15 min.

3. VOLUME CAPACITY OF MIXED BELZONA® 1821

27.3 cu.in. (448 cm³) per kg.

4. MIXING AT LOW TEMPERATURES

To ease mixing when the material temperature is below 41°F (5°C), warm the Base and Solidifier modules until the contents attain a temperature of 68-77°F (20-25°C).

5. COVERAGE RATE

To achieve the correct film thickness, a practical coverage rate of 6.5 sq.ft. (0.6 m²) per 800 gm unit should be obtained.

6. USE OF MASKING TAPE

For non-slip applications to brake test rollers, mask off the ends of the rollers which are not to be treated, this lends a neat appearance to the application.

3. APPLYING BELZONA® 1821

FOR BEST RESULTS

Do not apply when:

- The temperature is below 41°F (5°C) or the relative humidity is above 90%.
- Rain, snow, fog or mist is present.
- There is moisture on the metal surface or is likely to be deposited by subsequent condensation.
- The working environment is likely to be contaminated by oil/grease from adjacent equipment or smoke from kerosene heaters or tobacco smoking.

Apply the **Belzona® 1821** directly on to the prepared surface with a stiff bristled brush or with the plastic applicator provided. To achieve the correct film thickness, a practical coverage rate of 15 - 20 mils (375 - 500 microns) per 800 gm unit should be obtained.

4. APPLICATION OF A FURTHER LAYER OF BELZONA® 1821

Where this is required it should be applied as soon as the first layer becomes tack free or a maximum of 24 hours after application of the first layer when the ambient temperature is 59-68°F (15-20°C). At higher temperatures this time will be reduced, at lower temperatures it will be increased. After a maximum overcoating time has elapsed the solidified **Belzona® 1821** must be roughened before applying **Belzona® 1821**.

5. COMPLETION OF THE MOLECULAR REACTION

Allow **Belzona® 1821** to solidify as below subjecting it to the conditions indicated.

Temperature	Movement or use involving no loading or immersion in chemicals	Machining and/or light loading	Full mechanical or thermal loading	Immersion in chemicals
41°F/ 5°C	16 hours	24 hours	3 days	8 days
50°F/10°C	6 hours	8 hours	2 days	6 days
59°F/15°C	3 hours	6 hours	1 ½ days	4 days
68°F/20°C	2 hours	4 hours	24 hours	3 days
77°F/25°C	1¼ hours	3 hours	12 hours	2 days
86°F/30°C	1 hour	2 ½ hours	8 hours	1 day

6. NON-SLIP APPLICATIONS ON BRAKE TEST ROLLERS

- For non-slip applications to brake test rollers, mask off the ends of the rollers which are not to be treated, this lends a neat appearance to the application.
- Apply the mixed **Belzona® 1821** as described previously. To obtain a smooth finish the rollers should be rotated slowly.
- Sprinkle **Belzona® 9211** (Supergrip Aggregate) into the uncured **Belzona® 1821** to the required density.
- Press the **Belzona® 9211** into the **Belzona® 1821** using a wooden block.
- Lightly sweep over the system with a brush to remove excess **Belzona® 9211** which can be used again.
- Remove the masking tape immediately - this will give a neat feather-edge to the application.

CLEANING

Mixing tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent e.g. Methyl ethyl ketone (MEK). Brushes, injection guns and any other application tools should be cleaned using a suitable solvent such as **Belzona® 9121**, MEK, acetone or cellulose thinners.

HEALTH & SAFETY INFORMATION

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

All descriptions are based on the results of long term tests carried out in our laboratories and are believed to be true and accurate. No condition or warranty is given covering the results from the use of our products in any particular case, whether the purpose is disclosed or not, and we cannot accept liability if the desired results are not obtained.

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Belzona Polymerics Ltd.,
Claro Road,
Harrogate, HG1 4AY, England.
Tel: +44 (0) 1423 567641
Fax: +44 (0) 1423 505967
E-Mail: belzona@belzona.co.uk

Belzona Inc.,
2000 N.W. 88 Court,
Miami, Florida 33172, U.S.A.
Tel: +1 (305) 594 4994
Fax: +1 (305) 599 1140
E-Mail: belzona@belzona.com



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