



BELZONA® 2511

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

a) Metallic Surfaces

Remove all loose surface contamination and degrease with **Belzona® 9111** (Cleaner/Degreaser) or any other effective cleaner which does not leave a residue, e.g. methyl ethyl ketone (MEK).

Grit blast to a minimum 3 mil (75 microns) profile. Where blasting is not practical, thorough mechanical grinding may be considered, except for applications involving tensile loads, such as expansion joints, and all applications involving immersion and/or fluid flow. Brush away loose contamination and degrease again.

b) Flexible Surfaces (e.g. rubbers)

NOTE: **Belzona® 9111** can draw processing oils and waxes to the surface of some rubbers, particularly when new, which then impairs adhesion of **Belzona® 2511**. Test for this on small area. If, on rubbing with a rag moistened with **Belzona® 9111**, a greasy film appears, the surface should not be degreased, but simply abraded. Undercut fine edges with a sharp knife and scuff the surface with a rotary wire brush or suitable roughing tool. Brush away loose contamination and degrease again.

c) Concrete

Wash old concrete down with detergent solution to remove oil, grease and dust. Use clean water to wash away the detergent.

Remove all paint, tar and any other coatings. Allow new concrete to cure for a minimum of 28 days or until the moisture content is below 6% using a protimeter.

Horizontal concrete surfaces and new concrete will show the phenomenon of surface laitence and this must be removed by mechanical scarification.

2. CONDITIONING

a) Condition rigid substrates (ie. metals and concrete) with **Belzona® 4911** (Magma TX Conditioner)

Add the entire contents of **Belzona® 4911** Solidifier to **Belzona® 4911** Base and stir thoroughly until completely mixed. Immediately brush all of this conditioner onto the surface to be treated with **Belzona® 2511**, with a stiff bristled brush, not exceeding an area of 12 sq.ft. (1.1 m²)/450gm unit.

NOTES:

- For mixing small quantities of **Belzona 4911** use:
2 parts Base : 1 Part Solidifier by volume

- Conditioning and overcoating must be completed within the following times:

Ambient Temperature	Usable life after mixing	Minimum overcoating time	Maximum overcoating time*
41°F/ 5°C	230 mins	Application can commence as soon as conditioning has been completed	6 hours
50°F/10°C	105 mins		6 hours
59°F/15°C	55 mins		6 hours
68°F/20°C	45 mins		6 hours
77°F/25°C	32 mins		6 hours

* If the maximum overcoating time for the **Belzona® 4911** is exceeded, then the cured surface should be abraded and fresh **Belzona® 4911** applied.

b) Condition flexible (ie. rubber) substrates with **Belzona® 2911** (Elastomer QD Conditioner), or if an isocyanate free Conditioner is required, use **Belzona® 2951**.

Immediately, apply a thin, even coat of **Belzona® 2911** or **Belzona® 2951** onto the surface. A brush should be used as a stipple to ensure a practical coverage rate of 13 sq.ft. (1.25 m²) per unit of **Belzona® 2911**, or 10 sq.ft. (1.0 m²) per unit of **Belzona® 2951**, although on well roughened rubber substrates this could be reduced by as much as 50%.

The **Belzona®** Conditioner must be touch dry before overcoating with **Belzona® 2511**. This will depend on the **Belzona®** Conditioner selected, prevailing temperature, relative humidity and substrate.

At 68°F (20°C) and 50% relative humidity, the touch dry state will be achieved after the times given below when applied to a smooth rubber surface. These times may be extended when applied to well roughened rubber substrates.

Conditioner	Touch Dry	Max. Overcoating
Belzona® 2911	20 min	4 hours
Belzona® 2951	20 min	24 hours

Under no circumstances should application of **Belzona® 2511** take place after the maximum overcoating time.

When using **Belzona® 2511** to overcoat a surface which has been treated with a **Belzona® 1000** Series product, the **Belzona® 1000** Series product must first be allowed to fully cure, the surface prepared as outlined in section 1 (a), and **Belzona® 4911** applied as outlined in section 2 (a).

WHERE BELZONA® 2511 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 3.

3. COMBINING THE REACTIVE COMPONENTS

a) If using a new/full cartridge

- Cut off sealed nozzle end of cartridge with a suitable knife.
- Fit Belzona® static mixer through retaining nut and screw nut/mixer onto cartridge nozzle.
- Slot cartridge into gun frame, plunger end first so that the off centre mixer nozzle is towards the top of the cartridge.
- Pump gun handle to dispense material. To stop material flow, release pressure by pushing plunger return lever.

IMPORTANT

- Do not overpump gun. Allow pressure to build until material is moving freely, then stop pumping. Recommence pumping when material flow slows.
 - Do not use the initial 6-8" length of product (assuming that static mixer has been cut off to full bore). This is to ensure full mixing of the **Belzona® 2511**.
- (v) When sufficient material has been dispensed, the cartridge can be resealed by either leaving the mixer/nut in place and allowing the **Belzona® 2511** to cure, or by removing the mixer/nut and fitting the screw cap supplied.

b) If using a part-used cartridge:

- Remove screw cap or old mixer as appropriate.
- Ensure that the cartridge nozzle outlets are clear of any partially gelled material - use a knife if necessary.
- Fit new static mixer using original retaining nut.
- Proceed as per section 3 (a) (iii).

NOTES:

1. MIXING AT LOW TEMPERATURES

To ease mixing when the material temperature is below 41°F (5°C), warm the container until the contents attain a temperature of 68 - 70°F (20 - 25°C).

2. WORKING LIFE

From the commencement of mixing, **Belzona® 2511** must be used within the times shown below.

Temperature	41°F (5°C)	59°F (15°C)	77°F (25°C)	86°F (30°C)
Use all material within	35 min.	20 min.	13 min.	10 min.

3. VOLUME CAPACITY OF MIXED BELZONA® 2511

24.2 cu.in. (396 cm³) per unit.

4. APPLYING THE BELZONA® 2511

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 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.

- a) Apply the **Belzona® 2511** directly onto the prepared surface from the mixer nozzle or with the plastic applicator or spatula provided. Press down firmly to remove entrapped air and to ensure maximum contact with the surface.
- b) Contour the **Belzona® 2511** to the correct profile with the plastic applicator.

NOTE: CLEANING

Application tools should be cleaned using a suitable solvent such as **Belzona® 9121**, MEK, acetone or cellulose thinners.

5. COMPLETION OF THE MOLECULAR REACTION

Allow **Belzona® 2511** to solidify as below before subjecting it to the conditions indicated:

	Movement or use involving no loading or immersion	Light loading	Full mechanical or thermal loading	Immersion in chemicals
41°F/ 5°C 50°F/10°C 59°F/15°C 68°F/20°C 77°F/25°C 86°F/30°C	15 hours 9 hours 6 hours 3 hours 2 hours 1½ hours	24 hours 18 hours 9 hours 6 hours 4½ hours 3 hours	4 days 3 days 2 days 1½ days 1 day 18 hours	15 days 10 days 7 days 5 days 3 days 2 days

HEALTH & SAFETY INFORMATION

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

All descriptions are based on the results of long term tests carried on 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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