



BELZONA® 5821

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

i) Metallic surfaces - Apply only to blast cleaned surfaces.

- 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). Use only an angular abrasive.
- Blast clean the metal surface to achieve the following standard of cleanliness:
ISO 8501-1 Sa 2½ very thorough blast cleaning
American Standard near white finish SSPC SP 10
Swedish Standard Sa 2½ SIS 05 5900
- After blasting, metal surfaces should be coated before any oxidation of the surface takes place.
- Belzona® 5981** can be used as a holding primer on freshly blasted steelwork. This may be overcoated up to 30 days after application. Please refer to **Belzona® 5981** Instruction for Use leaflet.

SALT CONTAMINATED SURFACES

Metal surfaces that have been immersed for any periods in salt solutions e.g. sea water, should be blasted to the required standard, left 24 hours to allow any ingrained salts to sweat to the surface and then washed prior to a further brush blast to remove these. This process may need to be repeated to ensure complete removal of salts.

ii) Concrete Surfaces

Remove all paint, tar and any other coatings.

Any surface to which **Belzona® 5821** is to be applied must be clean, firm and dry. Wash old concrete down with detergent to remove oil, grease and dust. Use clean water to wash away the detergent.

Allow new concrete to cure for a minimum of 28 days or until the moisture content is below 6% using a Protimeter.

Blast clean, or mechanically scarify the surface to remove all loose material and surface laitence.

2. COMBINING THE REACTIVE COMPONENTS

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

MIXING AT LOW TEMPERATURES

To ease mixing when the material temperature is below 50°F (10°C), warm the Base and Solidifier modules until the contents attain a temperature of 68-77°F (20-25°C).

APPLICATION AT LOW TEMPERATURES

Belzona® 5821 can be applied down to 41°F (5°C) but the product is easier to apply over large areas when the ambient temperature and the surface to be coated are above 50°F (10°C).

WORKING LIFE

From the commencement of mixing, **Belzona® 5821** must be used within the times shown below.

Temperature	50°F(10°C)	77°F(20°C)	86°F(30°C)
Use all material within	3 hours	2 hours	1¼ hours

MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 5821** use:
3 parts Base to 1 part Solidifier by volume
4.9 parts Base to 1 part Solidifier by weight

3. APPLYING BELZONA® 5821

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.

a) FIRST COAT

Apply the **Belzona® 5821** directly on to the prepared surface with a short bristled brush or rubber squeegee.

In order to achieve the correct film thickness of 10 mils (250 microns) per coat, apply the material at a theoretical coverage rate of 43 sq. ft. (4.0 m²) per litre. (See below).

b) SECOND COAT

As soon as possible after application of the first coat, apply a further coat of **Belzona® 5821** as in (a) above. This time will be 6 - 8 hours at 68°F (20°C). The first coat must not be left longer than 72 hours before overcoating, irrespective of temperature. Should this occur, then the surface should be brush blasted or abraded before commencing application.

THEORETICAL COVERAGE RATES

The theoretical coverage rate for the two coat system will, be 21.5 sq. ft. (2.0 m²) per litre.

PRACTICAL COVERAGE RATES

In practice many factors influence the exact coverage rate achieved. On rough surfaces such as pitted steel and concrete the coverage rate achieved may be reduced by up to 20%.

NOTES:

1. SPRAY APPLICATION

Belzona® 5821 may be applied by spray. A plural feed or heated airless spray unit is required capable of delivering tip pressures up to 4000 psi (285 bar). **Under no circumstances must the product be thinned with solvent.**

2. CLEANING

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

3. DIFFERENTIATION BETWEEN LAYERS

Belzona® 5821 is available in black and beige, to facilitate application and to prevent misses. In service the colour of the applied product may change.

4. COMPLETION OF THE MOLECULAR REACTION

Belzona® 5821 will solidify under cold, damp conditions down to a temperature of 41°F (5°C). However, solidification time is dependent on ambient temperature, the lower the temperature the longer the solidification time.

Allow **Belzona® 5821** to solidify as below before subjecting it to the conditions indicated.

Temp- erature	Light loading	Full mechanical/ thermal loading or water immersion	Chemical contact
50°F/10°C	48 hours	14 days	21 days
68°F/20°C	24 hours	5 days	7 days
86°F/30°C	12 hours	2 days	5 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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