



BELZONA® 1421 System

INSTRUCTIONS FOR USE

**NOTE: THE BELZONA® 1421 SYSTEM COMPRISES
1 COAT OF BELZONA® 1341 AT 10 MIL (250 MICRON) PLUS
1 COAT OF BELZONA® 1421 AT 40 MILS (1 MM) THICKNESS.**

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.

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) SURFACES ALREADY REBUILT WITH BELZONA® 1111 (SUPER METAL)

- If overcoating takes place within 2 hours, no further surface preparation is required.
- After this maximum overcoating time has elapsed roughen the **Belzona® 1111** preferably by brush blasting before applying the **Belzona® 1421** system.

2. APPLICATION OF BELZONA® 1341 (SUPERMETALGLIDE)

All surfaces should be treated with a single coat of **Belzona® 1341** applied at 10 mils (250 microns). Refer to the Instructions For Use supplied with the **Belzona® 1341** for full application details.

As soon as possible after application of the **Belzona® 1341**, apply the **Belzona® 1421**. This time will be approximately 4 hours at 68°F (20°C). The first coat of **Belzona® 1341** must not be left longer than 24 hours before overcoating, irrespective of temperature. Should this occur, then the surface should be brush blasted or abraded before commencing application of the **Belzona® 1421**.

3. APPLICATION OF BELZONA® 1421

3.1 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 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).

2. WORKING LIFE

From the commencement of mixing, **Belzona® 1421** 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	80 min.	40 min.	20 min.

3. MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 1421** use:
3.5 parts Base to 1 part Solidifier by volume
100 parts Base to 26 parts Solidifier by weight.

4. VOLUME CAPACITY OF MIXED BELZONA® 1421

28.3 cu.in. (464 cm³) /500g.

3.2 APPLYING BELZONA® 1421

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® 1421** directly on to the **Belzona® 1341** coated surface with a stiff bristled brush or with the plastic applicator provided.

To achieve the correct film thickness of 40 mils (1 mm), a practical coverage rate of 5 sq.ft. (0.46 m²) per 500g unit should be obtained.

TO ACHIEVE A UNIFORM COATING

- Apply the coating in one operation without interruption.
- In the area being treated by one unit of material, first "stripe coat" detail areas such as brackets, edges, corners and welds. Use a brush or applicator to initially wet out the substrate before building up to the full coating thickness over the complete area designated for that unit of material."
- Use a wet film thickness guage to regularly check that the correct film thickness is being achieved.
- Finish application with a brush to obtain uniform coverage.
- Ensure adequate lighting is available to prevent misses.

INSPECTION

- Immediately after application of each unit, visually inspect for pinholes and misses. Where detected these should be immediately brushed out.
- Once the application is complete and the coating has hardened, carry out a thorough visual inspection to confirm freedom from pinholes and misses, and to identify any possible mechanical damage.

CLEANING

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

4. COMPLETION OF THE MOLECULAR REACTION

Allow **Belzona® 1421** to solidify as below subjecting it to the conditions indicated.

Temperature	Movement or use involving no loading or immersion	Machining and/or light loading	Full mechanical loading or water immersion
41°F/ 5°C	16 hours	30 hours	14 days
50°F/10°C	10 hours	20 hours	10 days
59°F/15°C	7 hours	14 hours	7 days
68°F/20°C	5 hours	10 hours	5 days
77°F/25°C	3½ hours	7 hours	3½ days
86°F/30°C	2½ hours	5 hours	2½ days

5. FINAL SOLIDIFICATION OF BELZONA® 1421

When time is important and equipment usage is pressing, then by installing forced air heaters and taking steps to contain this heat around the equipment being reclaimed, final solidification time can be as little as 24 hours. Due allowance must be made for "warming up".

HEALTH & SAFETY INFORMATION

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

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Belzona® 1421 - Instructions For Use - (Page 2)

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