

Belzona 1982

FN10169



INSTRUCTIONS FOR USE

IMPORTANT NOTE:

THIS DOCUMENT IS FOR GUIDANCE ONLY. THE CORRECT USE OF BELZONA® 1982 AS PART OF THE ISO 24817 / ASME PCC-2 SECTION 4.1 COMPLIANT SUPERWRAP® II SYSTEM IS SPECIFIED IN THE METHOD STATEMENT PROVIDED WITH THE BESPOKE DESIGN PACK AND IS APPROVED ONLY FOR QUALIFIED PERSONNEL WHO HAVE BEEN VALIDATED IN ACCORDANCE WITH ISO 24817 (ANNEX I) OR ASME PCC-2 SECTION 4.1.

Belzona® 1982 is designed as an impregnation resin for Belzona® 9381 fabric to create composite repairs.

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

- 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). Where necessary, use a flame to sweat out oil from deeply impregnated surfaces.
- 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.
Or
Power tool clean the surface to achieve the following standard of cleanliness:
SSPC-SP11 power tool cleaning to bare metal.
- After roughening, degrease by flooding with **Belzona® 9111** (Cleaner/Degreaser) or other effective cleaner, working it into the prepared area with a short bristled brush.

For optimum results, the greatest possible surface preparation should be achieved.
- Mix and apply an appropriate Belzona paste grade product (e.g. **Belzona® 1111** or **Belzona® 1121**) in accordance with the relevant IFU to fill heavily pitted/damaged areas prior to application of the composite laminate.

2. COMBINING THE REACTIVE COMPONENTS

Use the measuring cups provided to decant Base (250 ml. cup) and Solidifier (100 ml. cup) in the correct volume ratio. Decant the components into the bowl provided, ensuring to scrape any excess out of the measuring cups before mixing thoroughly for 3 minutes until a homogeneous mix is achieved then immediately proceed to Stage 3, "Application". For larger applications mix whole units of Base and Solidifier in a suitable container.

WARNING:
UNDER NO CIRCUMSTANCES SHOULD MATERIAL BE MIXED AND LEFT TO STAND, AS THE EXOTHERM PRODUCED WILL GREATLY REDUCE THE WORKING LIFE OF THE MIXED MATERIAL.

NOTES:

1. WORKING LIFE

From the commencement of mixing, **Belzona® 1982** must be used within the times shown below.

Temperature	68°F (20°C)	86°F (30°C)	104°F (40°C)
Use all material within	40 minutes	30 minutes	25 minutes

2. MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 1982** use:
2.5 parts Base to 1 part Solidifier by volume
2.7 parts Base to 1 part Solidifier by weight

3. APPLYING BELZONA® 1982

FOR BEST RESULTS

Do not apply when:

- The temperature is below 68°F (20°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.

- APPLICATION OF BELZONA® 1982**
Initially apply a thin layer of **Belzona® 1982** onto the repair area, working it into the substrate with a short-bristled brush. Apply the **Belzona® 1982** directly to **Belzona® 9381** composite fabric with an applicator, brush, roller or rubber squeegee. Ensure saturation of **Belzona® 9381** fabric (see coverage rates below) as indicated by translucency of glass fibres on the composite fabric.

b) **APPLICATION OF WET COMPOSITE**

Within the marked repair area, wrap the wet **Belzona® 9381** fabric in a spiral fashion with a 50% overlap. Depending on the chosen **Belzona® 9381** fabric width, this may be indicated by centre-line tracer stitch. Add additional wraps as required, observing over-wrap times. Regardless of conditions, no more than four wraps should be applied before the application of release film to ensure an effective bond.

c) **APPLICATION OF RELEASE FILM**

Wrap the **Belzona® 9382** release film over the wet repair area in a spiral fashion. Apply tension compress composite. Secure taut at both ends by the application of adhesive tape.

COVERAGE RATES

Rolls of **Belzona® 9381** fabric are available in a choice of four widths (42mm, 84mm, 254mm and 1270mm). The quantity of **Belzona® 1982** required to fully wet each width of **Belzona® 9381** fabric is shown in the table below.

Belzona® 9381	Volume of Belzona® SuperWrap® II resin per linear meter of Belzona® 9381 (L)	Length of Belzona® 9381 per litre Belzona SuperWrap® II resin (m)
42 mm	0.03	33.4
84 mm	0.06	16.7
254 mm	0.19	5.3
1270 mm	0.95	1.1

OVER-WRAP TIMES

The maximum over-wrap time for **Belzona® 1982** composite onto previous layers of **Belzona® 1982** composite is 6 hours irrespective of temperature or humidity.

In the event that the maximum overcoat time is exceeded, then the cured surface should be washed with warm detergent solution to remove any amine bloom that has formed. Rinse the surface with clean water and allow to dry. Abrade the surface of the **Belzona® 1982** composite to produce a frosted appearance free of all gloss and degrease with **Belzona® 9111** or any other effective cleaner which does not leave a residue e.g. MEK. Then apply additional layers of **Belzona® 1982** composite.

NOTES:

1. 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.

2. COLOUR

Belzona SuperWrap® II resins are available in different colours to facilitate identification. **Belzona® 1981** is blue, **Belzona® 1982** is green and **Belzona® 1983** is amber. There may be some colour variation between batches and in service the colour of the applied product may change.

4. COMPLETION OF THE MOLECULAR REACTION

Solidification time is dependent on cure temperature, the lower the temperature the longer the solidification time.

Allow **Belzona® 1982** to solidify as below prior to service conditions.

Temperature	Touch Dry	Full service	Chemical contact
68°F(20°C)	3 hours	24 hours	7 days
86°F(30°C)	2.5 hours	24 hours	4 days
104°F(40°C)	2 hours	24 hours	2 days

HEALTH & SAFETY INFORMATION

Please read and make sure you understand the relevant 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.

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