

Belzona 1984

FN 10228



INSTRUCTIONS FOR USE

IMPORTANT NOTE:

THIS DOCUMENT IS FOR GUIDANCE ONLY. THE CORRECT USE OF BELZONA® 1984 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® 1984 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 prior to roughening the surface.
- Minimum surface preparation requirements are to power tool clean the surface to achieve the following standard of cleanliness:
SSPC-SP11 power tool cleaning to bare metal and a minimum depth of profile of 1 mil (25 microns). This can be completed using a suitable grinder.
- Mix and apply an appropriate Belzona paste grade product (e.g. **Belzona® 1161**) 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. larger white cup) and Solidifier (150 ml. smaller blue cup) in the correct volume ratio.

NOTE: Cups should be filled to the brim to ensure correct mix ratio.

Mix thoroughly in the bowl provided for 3 minutes until a homogeneous mix is achieved then immediately proceed to Stage 3, "Application".

WARNING:
AVOID LEAVING MIXED RESIN TO STAND FOR PROLONGED PERIODS AS THE EXOTHERM PRODUCED CAN REDUCE THE WORKING LIFE OF THE MIXED MATERIAL.

NOTE:

1. WORKING LIFE

From the commencement of mixing, **Belzona® 1984** must be used within the times shown below.

Temperature	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
Use all material within	2 hours	2 hours	1 hour	50 mins	30 mins

2. MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 1984** use:

- 1.6 parts Base to 1 part Solidifier by volume
- 1.9 parts Base to 1 part Solidifier by weight

3. APPLYING BELZONA® 1984

a) APPLICATION OF BELZONA® 1984

Apply the **Belzona® 1984** 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. Wind wetted composite onto suitable spool ready for application.

NOTE: In order to maximise product working life, avoid leaving rolled up wetted out composite to stand for prolonged periods.

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 perforated **Belzona® 9382** release film over the completed wet repair area in a spiral fashion. Apply tension to compress composite. Secure taut at both ends of the application using suitable tape, straps or magnets.

COVERAGE RATES

Rolls of **Belzona® 9381** fabric are available in a choice of four widths (42mm, 84mm, 254mm and 1270mm). The quantity of **Belzona® 1984** required to fully wet each width of **Belzona® 9381** fabric is shown in the table below.

Belzona® 9381 width	Volume of Belzona® SuperWrap® II resin per linear meter of Belzona® 9381 (L)	Length of Belzona® 9381 per litre SuperWrap® II resin (m)
42 mm	0.03	33.3
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® 1984** composite onto previous layers of **Belzona® 1984** composite is 16 hours irrespective of temperature, humidity or application underwater.

In the event that the maximum overcoat time is exceeded, abrade the surface of the **Belzona® 1984** composite to produce a frosted appearance free of all gloss then apply additional layers of **Belzona® 1984** 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.

4. COMPLETION OF THE MOLECULAR REACTION

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

Allow **Belzona® 1984** to solidify as below prior to service conditions.

Temperature	Touch Dry	Full service
5°C (41°F)	16 hours	14 days
10°C (50°F)	10 hours	10 days
20°C (68°F)	5 hours	4 days
30°C (86°F)	3 hours	3 days
40°C (104°F)	2.5 hours	2.5 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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