Belzona 4141

(MAGMA-BUILD)

BELZONA®
Repair • Protect • Improve

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Any surface to which **Belzona® 4141** 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.

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.

Wire brush, or mechanically abrade the surface to remove loose material.

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

Abrade metallic surfaces to remove loose rust and flaking paint and then roughen by blasting, grinding or other suitable means to achieve a rough bright metal surface. Vacuum up any loose dust produced by surface preparation techniques.

Treat any surfaces to which **Belzona® 4141** should not adhere with **Belzona® 9411** (Release Agent) and leave for 15 - 20 minutes to dry before proceeding; seal porous surfaces to be treated with **Belzona® 9411** first, with a suitable lacquer, e.g. shellac or cellulose enamel.

2. CONDITIONING

Add the entire contents of **Belzona® 4911** (Magma TX Conditioner) 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® 4141,** with a stiff bristled brush, not exceeding an area of 12 sq.ft. (1.1 m²) per 450g unit.

NOTES:

1. For mixing small quantities of **Belzona® 4911** use:
   2 Parts Base : 1 Part Solidifier by Volume

2. Conditioning and overcoating must be completed within the times shown opposite:

Ambient Temperature	Usable life after mixing	Minimum overcoating time	Maximum overcoating tlme*
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.

3. COMBINING THE REACTIVE COMPONENTS

Mixing may be carried out in the large bucket supplied but due to the bulk and stiffness of the mixed materials, it is essential that a mechanical mixer is used to ensure complete mixing.

Add approximately half the Base component and all of the Solidifier component to the mixing container and start the mixer.

Once initial incorporation has been achieved, slowly add the remainder of the Base material and mix together thoroughly for approximately 5 minutes, or until an even color and consistency are achieved. During this time periodically stop the mixer and withdraw the mixing paddle and scrape clean before continuing mixing.

NOTES:

1. WORKING LIFE

From the commencement of mixing, **Belzona® 4141** must be used within the times shown below:

Temperature	Use all material within
50°F/10°C	1½ hours
59°F/15°C	45 mins
68°F/20°C	30 mins
77°F/25°C	20 mins

To extend the working life of mixed **Belzona® 4141** spread the material out on a sheet of polyethylene and keep it in a cool place out of direct sunlight.

2. MIXING SMALL QUANTITIES
For mixing small quantities of **Belzona® 4141**, use:
8 parts Base to 1 part Solidifier by weight, or
13 parts Base to 1 part Solidifier by volume.

For convenience, measuring vessels of 1 litre and 77 cm³ capacity are supplied with the product. The Base component should be packed into the orange 1 litre container when measuring out.

3. VOLUME CAPACITY OF MIXED BELZONA® 4141
671 cu.ins. (11,000 cm³) per 8.0 kg unit.

4. APPLYING BELZONA® 4141

The mixed **Belzona® 4141** is best applied by gloved hand, forcing the material firmly into the areas to be rebuilt leaving the **Belzona® 4141** proud of the surrounding area.

It can then be finished with a steel float or similar tool. Best results are obtained by continuously wetting the float or tool with clean water.

NOTES:
1. APPLICATION LIMITS
Belzona® 4141 can be applied when the temperature is anywhere between 41°F (5°C) and 77°F (25°C).

2. DAMP SURFACES
Belzona® 4141 can be applied to damp surfaces but its adhesion will be approximately 75% of that obtained on a dry surface.

3. APPLYING ADDITIONAL LAYERS OF BELZONA® 4141
Where this is required it should be done as soon as the first layer is firm enough to accept the second layer and within the maximum overcoating time of 6 hours.

After this time the surface of the **Belzona® 4141** must be abraded before further application.

In all cases the surface must be conditioned with **Belzona® 4911** (see Section 2) before applying further **Belzona® 4141.**

4. COLORING
Belzona® 4141 is supplied in cement gray and stone colors but it can be tinted as required by initially mixing powder type concrete coloring additives such as Cementone or Trumix Color Pack with the Base Component. As a guide, an addition of 0.5-1.0% by weight of colorant is sufficient to give a strong color with the lighter stone colored material being easier to tint.

5. CLEANING
Mixing tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent e.g. MEK. Brushes, injection guns, spray equipment and any other 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® 4141** to solidify for the following times before subjecting it to the conditions indicated:

Temperature	41°F (5°C)	59°F (15°C)	77°F (25°C)
Dimensionally stable	10 hours	4 hours	2 hours
Full mechanical strength	3 days	1 day	12 hours
Full chemical resistance	12 days	6 days	3 days

HEALTH & SAFETY INFORMATION
Please read and make sure you understand the relevant Material 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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