



BELZONA® 4521

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Any surface to which **Belzona® 4521** is to be applied must be clean, firm and dry.

Surfaces less than 48 hours old created with **Belzona® 4111** or **Belzona® 4131** do not require conditioning. After this time the surfaces must be thoroughly abraded and conditioned.

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 vertical upstands to remove loose surface material .

Horizontal concrete surfaces and new concrete will show the phenomenon of surface laitence 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.

Insert backer rod to achieve correct joint configuration.

Treat any surface to which **Belzona® 4521** 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® 4521**, with a stiff bristled brush, not exceeding an area of 12 sq.ft. (1.1 m²) per 450 gm 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 following times:

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

Stir the contents of the Solidifier container thoroughly to reincorporate any separation.

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. WORKING LIFE

From the commencement of mixing, **Belzona® 4521** must be used within the times shown.

Temperature	50°F (10°C)	59°F (15°C)	68°F (20°C)	77°F (25°C)
Use all material within	45 min.	30 min.	23 min.	18 min.

2. MIXING SMALL QUANTITIES

Whenever possible, complete units of **Belzona® 4521** should be mixed. Where small quantity mixes are required, mix 1 part Base: 1 part Solidifier by Weight

It is important that these mixing ratios are accurately adhered to.

3. VOLUME CAPACITY OF MIXED BELZONA® 4521

82.4 cu.in. (1350 cm³) per 1.7 kg unit.

4. APPLYING THE BELZONA® 4521

FOR BEST RESULTS

Do not apply when:-

- (i) The temperature is below 50°F(10°C) or the relative humidity is above 90%.
- (ii) Rain, snow, fog or mist is present.
- (iii) There is moisture on the surface or is likely to be deposited by subsequent condensation.
- (iv) The working environment is likely to be contaminated by oil/grease from adjacent equipment or smoke from kerosene heaters or tobacco smoking.

Pour **Belzona® 4521** into the joint avoiding air entrapment. When the joint is filled, a suitable scraper should be used to remove any excess material.

CLEANING

Mixing tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent eg. MEK. 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® 4521** to solidify as below before subjecting it to the conditions indicated:

	Light loading	Full mechanical or thermal loading
50°F/10°C	12 hours	72 hours
59°F/15°C	6 hours	48 hours
68°F/20°C	4 hours	36 hours
77°F/25°C	3 hours	24 hours

These times are for a thickness of approximately 0.25 ins (0.6 cm); they will be reduced for thicker sections and extended for thinner sections.

HEALTH & SAFETY INFORMATION

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

All descriptions are based on the results of long term tests carried out 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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Belzona® 4521 - Instructions For Use - (Page 2)

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Belzona Polymerics Ltd.,
Claro Road,
Harrogate, HG1 4AY, England.
Tel: +44 (0) 1423 567641
Fax: +44 (0) 1423 505967
E-Mail: belzona@belzona.co.uk

Belzona Inc.,
2000 N.W. 88 Court,
Miami, Florida 33172, U.S.A.
Tel: +1 (305) 594 4994
Fax: +1 (305) 599 1140
E-Mail: belzona@belzona.com



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