

PRODUCT SPECIFICATION SHEET

BELZONA 4141

FN 10226



GENERAL INFORMATION

Product Description:

This two-component epoxy-based material is a lightweight, non-porous repair compound specifically designed for rebuilding severely damaged or worn vertical/overhead concrete and stone surfaces. The product can be applied up to 127 mm (5 inches) thick on a vertical surface and up to 76 mm (3 inches) thick on an overhead surface with minimal support during application. To ensure excellent adhesion to the substrate, a primer **Belzona 4911** (Magma TX Conditioner), is used with the product.

Application Areas:

When mixed and applied as detailed in the Belzona Instructions for Use (IFU), the system is ideally suited for application to the following:

- Spalled concrete
- Archways
- Bridges
- Refurbishment of decorative mouldings
- Weathered stonework
- Windowsills
- Walls
- Cosmetic repairs

APPLICATION INFORMATION

Working Life

Will vary according to temperature. At 20°C (68°F), use all mixed material within 30 minutes.

Cure Time

Allow to solidify for the times shown in the Belzona IFU before subjecting it to the conditions indicated.

Volume Capacity

The theoretical volume capacity of mixed **Belzona 4141** is 9,805 cm³ (598 in³) per 8 kg unit. However, in use this can vary due to the light-weight nature of the product and level of compaction achieved, giving a practical volume capacity of up to 11,000 cm³ (671 in³) per 8 kg unit.

Base Aggregate Component

Appearance Damp sand
Colour Grey or Stone
Density 0.80 - 0.86 g/cm³

Solidifier Component

Appearance Clear mobile liquid
Colour Amber
Density 0.97 g/cm³

Mixing Ratio (Base : Solidifier)

by Weight 8 : 1
by Volume 13 : 1

Sag Resistance

At 20°C (68°F) material shows no signs of slump at 100mm (4 inches).

The above application information serves as introductory guide only. For full application details including the recommended application procedure/technique, refer to the Belzona IFU which is enclosed with each packaged product.

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ABRASION

Taber

When tested in accordance with ASTM D4060 with a 1kg load, typical loss per 1,000 cycles is:

Dry (CS17 wheels) 374 mm³ (0.02 in³)

ADHESION

PosiTest Dolly Pull-Off

When tested in accordance with ASTM D4541, the pull-off adhesion will typically be:

Dry concrete 3.6 MPa (520 psi)*
 Damp concrete 4.2 MPa (605 psi)*

* Cohesive failure within substrate

COMPRESSIVE PROPERTIES

When determined in accordance with ASTM D695, typical values will be:

	Compressive Strength (Yield/Break)	Compressive Modulus	Proportional Limit
20°C (68°F) for 7 days	25.4 MPa (3,680 psi)	930 MPa (1.3 x 10 ⁵ psi)	19.8 MPa (2,870 psi)
20°C (68°F) for 7 days (heavily compacted)	43.4 MPa (6,290 psi)	1470 MPa (2.1 x 10 ⁵ psi)	41.1 MPa (5,960 psi)

FLEXURAL PROPERTIES

Flexural Strength

When tested in accordance with ASTM D790, the flexural strength will typically be:

17.4 MPa (2,530 psi) 20°C (68°F) for 7 days

Flexural Modulus

When tested in accordance with ASTM D790, the flexural modulus will typically be:

3,800 MPa (5.5 x 10⁵ psi) 20°C (68°F) for 7 days

HEAT RESISTANCE

Heat Distortion Temperature (HDT)

The HDT when determined in accordance with ASTM D648, following a 7 day cure period, will typically be:

Cure Temperature	HDT
5°C (41°F)	29°C (84°F)
10°C (50°F)	31°C (88°F)
20°C (68°F)	41°C (106°F)
40°C (104°F)	45°C (113°F)

Dry Heat Resistance

The indicated degradation temperature in air based on Differential Scanning Calorimetry (DSC) operated in accordance with ISO 11357 is typically 155°C (311°F).

For many typical applications, the product is suitable down to -40°C (-40°F).

IMPACT RESISTANCE

Izod Impact Strength

When tested in accordance with ASTM D256, the impact resistance will typically be:

1.45 kJ/m² (Un-notched) 20°C (68°F) for 7 days
 0.95 kJ/m² (Reverse notched) 20°C (68°F) for 7 days

SHELF LIFE

Separate base and solidifier components shall have a shelf life of 5 years from date of manufacture when stored in their original unopened containers between 5°C (41°F) and 30°C (86°F).

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WARRANTY

This product will meet the performance claims stated herein when material is stored and used as instructed in the Belzona Information For Use leaflet. Belzona ensures that all its products are carefully manufactured to ensure the highest quality possible and are tested strictly in accordance with universally recognized standards (ASTM, ANSI, BS, DIN, ISO, etc.). Since Belzona has no control over the use of the product described herein, no warranty for any application can be given.

AVAILABILITY AND COST

Belzona 4141 is available from a network of Belzona Distributors throughout the world for prompt delivery to the application site. For information, consult the Belzona Distributor in your area.

HEALTH AND SAFETY

Prior to using this material, please consult the relevant Safety Data Sheets.

MANUFACTURER / SUPPLIER

Belzona Limited,
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TECHNICAL SERVICE

Complete technical assistance is available and includes fully trained Technical Consultants, technical service personnel and fully staffed research, development and quality control laboratories.

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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