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1. PRODUCT NAME Belzona® 4141 (Magma-Build) For rebuilding damaged vertical or overhead concrete surfaces.

2. MANUFACTURER

Belzona Inc., 2000 NW 88th Court, Miami, Florida 33172.

Belzona Polymerics Ltd.,

Claro Road, Harrogate, HG1 4AY, England.

3. PRODUCT DESCRIPTION

A two-component system consisting of a base aggregate and solidifier. Contains high molecular weight polymer, filled with low density, non-metallic aggregate. This material is a lightweight, non-porous concrete repair compound specifically designed for rebuilding severely damaged or worn vertical/overhead concrete surfaces. The product can be applied up to 5 inches (12.7 cm) thick on a vertical surface and up to 3 inches (7.6 cm) thick on an overhead surface with minimal support during application. Fixed shuttering or formwork are not required. Is ideal for both external or internal masonry. To ensure excellent adhesion to the substrate, a primer Belzona® 4911 (Magma TX Conditioner), is used with the product.

Applications Spalled concrete. Refurbishment of decorative moldings. Window sills. Archways. Walls. Bridges. Weathered stonework. Cosmetic repairs.

4. TECHNICAL DATA

Base Aggregate ComponentAppearanceDamp sandColorGray or StoneDensity0.80 g/cm³

<u>Solidifier Componen</u> Appearance Color Density	t Clear mobile liquic Amber 0.99 g/cm³	
<u>Mixing Ratio</u> (Base : Solidifier) by Weight by Volume	7:1 10·1	

Belzona® 4911 Base

Appearance	Thixotropic liquid
Color	Opaque
Sag Index	0.05 in. (1.27mm)
5	minimum
Density	1.20 g/cm ³
-	-

Belzona® 4911	Solidifier
Appearance	Liquid
Color	Clear
Viscosity	8 - 12 poise
2	at 77°F (25°C)
Density	1.02 g/cm ³

Belzona® 4911 Mixing Ratio(Base : Solidifier)by Weight5 : 2by Volume2 : 1

• Shelf Life:

Separate base and solidifier components will have a shelf live of 5 years when stored between 32°F (0°C) and 86°F (30°C) .

• Working Life:

Will vary according to temperature. At 77°F (25°C), use all mixed material within 45 minutes.

• Volume Capacity:

The volume capacity of the system is approximately 671 in³ (11,000 cm³) per 8 kg unit.

• Cure Time:

Allow to solidify for the times shown in the chart below before subjecting it to the conditions indicated.

PRODUCT SPECIFICATION SHEET BELZONA[®] 4141

5. PHYSICAL / MECHANICAL PROPERTIES

Determined after 7 days cure at $68^{\circ}F(20^{\circ}C)$.

• Abrasion Resistance:

Taber Using CS17 grinding wheels and 1 kg load tested dry, volume loss per 1,000 cycles is typically 0.05 in³ (0.80 cm³).

• Adhesion:

Elcometer

Dry concrete >210 psi (>15 kgs/cm²)* Wet concrete >185 psi (>13 kgs/cm²)*

* Cohesive failure within the Belzona® 4141

• Chemical Resistance:

The material offers good resistance to a broad range of chemicals. Please refer to Product Data Q505.

• Compressive Strength:

Tested in accordance with ASTM D695 is typically 3,600 psi (253 kgs/cm²).

• Flexural Strength:

Tested in accordance with ASTM D790 is typically 2,300 psi (162 kgs/cm²).

• Heat Distortion

Temperature:

Tested in accordance with ASTM D648 (264 psi fiber stress) is typically $113^{\circ}F$ (45°C).

• Heat Resistance:

For many typical applications, the product is thermally stable to $300^{\circ}F$ ($149^{\circ}C$) dry and $140^{\circ}F$ ($60^{\circ}C$) wet, and down to $-40^{\circ}F$ ($-40^{\circ}C$).

CURE TIMES						
Temperature	41°F (5°C)	59°F (15°C)	77°F (25°C)	86°F (30°C)		
Dimensionally stable	20 hrs	9 hrs	5 hrs	3 hrs		
Full mechanical strength	7 days	2 days	1 day	12 hrs		
Full chemical resistance	24 days	12 days	5 days	3 days		

• Izod Impact Strength:

Tested to ASTM D256 using notched test pieces is typically 0.26 ft.lbs./in. (14 J/m).

• Sag Resistance:

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

• Thermal Expansion:

Tested to ASTM E228 the coefficient of thermal expansion is typically 30 ppm/°C.

6. SURFACE PREPARATION AND APPLICATION PROCUDURES

For proper techniques, refer to Belzona® Instructions For Use which is enclosed with each packaged product.

7. 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.

8. WARRANTY

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

9. TECHNICAL SERVICES

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

10. HEALTH AND SAFETY

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

11. APPROVALS/ ACCEPTANCES U.S.D.A.

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