

PRODUCT SPECIFICATION SHEET

BELZONA 4361

FN10152



GENERAL INFORMATION

Product Description:

A flexible high performance, two-component barrier coating with outstanding resistance to a broad range of chemicals, especially acids and alkalis.

Application Areas:

When mixed and applied as detailed in the Belzona Instructions for Use (IFU), the system, which isolates concrete from aggressive chemical environments, is ideally suited for application to:

- Chemical containment areas
- Acid retaining walls
- Chemical drains and channels
- Chemical transfer and holding areas
- Walkways (with non-slip aggregate incorporated)

APPLICATION INFORMATION

Application Methods

Brush or squeegee

Application Temperature

Application should ideally occur in the following ambient temperature range: 59°F/15°C to 86°F/30°C

Cure Time

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

Note: Below 59°F (15°C), solidification times will be significantly extended and the resultant chemical resistance capability of the **Belzona 4361** may be reduced.

Coverage rate

Belzona 4361 should be applied as a two coat system at a recommended average thickness of 10 mil (250 µm) per coat.

At the minimum recommended two coat system thickness of 16 mil (400 µm), the theoretical coverage rate will be 33.4 ft² (3.1 m²)/1.5 kg unit.

Volume Capacity

76 cu.ins. (1240 cm³) per 1.5 kg unit.

Working Life

The working life will vary according to the temperature. At 68°F/20°C, the usable life of mixed material will typically be 30 minutes, consult the Belzona IFU for specific details.

Base Component

Appearance	Thixotropic liquid
Color	Black or Red
Gel Strength	85 -135 g/cm ³
Density	1.24 - 1.28 g/cm ³

Solidifier Component

Appearance	Clear Liquid
Color	Yellow/brown
Viscosity (BS 5350-B8)	3.6 - 4.2 poise at 77°F (25°C)
Density	1.08 - 1.12 g/cm ³

Mixed Properties

Mixing Ratio by Weight (Base : Solidifier)	3 : 1
Mixing Ratio by Volume (Base : Solidifier)	2.8 : 1
Color	Black or Red
Density	1.19 - 1.23 g/cm ³
Viscosity (BS 5350-B8)	27.5 - 28.1 poise at 77°F (25°C)
Sag Resistance (BS 5350-B9)	>500 µm / >20 mils
60° Specular Gloss (ASTM D2457)	90 - 100 Gloss Units
VOC content (ASTM D2369 / EPA ref. 24)	3.44% / 41.57 g/L

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

The sliding abrasion resistance, when determined in accordance with ASTM D4060 with 1 kg load, is typically:
CS17 wheels (Dry) 62.9 mm³ loss per 1000 cycles

ADHESION

Pull Off Adhesion

The PosiTest Dolly Pull Off Strength as determined in accordance with ASTM D4541 and ISO 4624, will typically be:

(68°F/20°C cure)
Dry Concrete¹: 810 psi (5.6 MPa)*
Damp Concrete¹: 780 psi (5.4 MPa)*

¹Conforms to ISO 13640 & EN 196

*Cohesive failure of substrate

CHEMICAL RESISTANCE

The material will demonstrate excellent resistance to a broad range of chemicals. For a more detailed description of chemical resistance properties, refer to relevant Chemical Resistance chart.

COMPRESSIVE STRENGTH

Compressive Yield Strength

When determined in accordance with ASTM D695, typical values will be:
(68°F/20°C cure) 10150 psi (70.0 MPa)

ELONGATION

When tested to ASTM D412 (Die C), typical values will be:
(68°F/20°C cure) 20%
(104°F/40°C cure) 16%

FIRE RESISTANCE

When tested in accordance with BS EN 13501-1 for reaction to fire, the system achieved Class E.

FLEXURAL YIELD STRENGTH

When determined in accordance with ASTM D790, typical values will be:
(68°F/20°C cure) 940 psi (6.5 MPa)

HARDNESS

Shore D

When determined in accordance with ASTM D2240, typical value will be: 60

HEAT RESISTANCE

Glass Transition Temperature (T_g)

The T_g when determined in accordance with ISO 11357-2 will typically be:
(68°F/20°C cure) 79°F(26°C)

Dry Heat Resistance

The indicated degradation temperature in air based on Differential Scanning Calorimetry (DSC) operated in accordance with ISO11357 is typically 266°F (130°C).

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

IMPACT RESISTANCE

Izod Pendulum

Izod impact strength, when determined in accordance with ASTM D256, will typically be:

(68°F/20°C cure)
Notched: 11.4 KJ/m² / 120 J/m
Un-notched: 12.8 KJ/m² / 160 J/m

Falling Weight

The direct falling weight impact resistance when determined in accordance with ASTM D2794 will typically be:
(68°F/20°C cure) >78.7 in.lbs (>0.91 kg.m)

LOW TEMPERATURE FLEXIBILITY

Maintains flexibility down to 32°F (0°C) passing ASTM D552 mandrel test at minimum 16 mm diameter (11.5% elongation).

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TENSILE PROPERTIES

Tensile Strength

When tested to ASTM D412 (Die C), typically values will be:
(68°F/20°C cure) 3490 psi (24.1 MPa)
(104°F/40°C cure) 4480 psi (30.9 MPa)

Crack propagation on concrete

When tested in accordance with German DIBt test standards at a crack propagation rate of 0.02mm/min, the system will typically achieve a gap width of 0.38mm before failure.

SHELF LIFE

Separate base and solidifier components shall have a shelf life of 2 years from date of manufacture when stored in their original unopened containers between 32°F (0°C) and 77°F (25°C). Refrigeration of this product will extend the shelf life.

WARRANTY

Belzona guarantees 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 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, 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 4361 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.

MANUFACTURER

Belzona Polymerics Ltd.
Claro Road, Harrogate,
HG1 4DS, UK

Belzona Inc.
2000 N.W. 88th Court,
Miami, Florida, USA, 33172

HEALTH AND SAFETY

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

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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