

PRODUCT SPECIFICATION SHEET

BELZONA 4151

FN10008



GENERAL INFORMATION

Product Description:

A concrete protection system for the treatment of surfaces exposed to chemical attack and abrasion. Also for grouting and bonding. A two component clear amber resin system with excellent adhesion to masonry and metallic surfaces. Provides a tough seamless coating suitable for heavy duty dust proofing or protection from chemicals.

APPLICATION INFORMATION

Working Life

Will vary according to temperature. At 77°F (25°C), use all mixed material within 13 minutes.

Coverage Rate

Film thickness and coverage rate will vary with porosity and profile of the substrate. Each 6 kg unit will give a practical coverage rate of 205 ft² (19 m²)

Cure Time

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

Volume Capacity

330 in³ (5420 cm³)/ 6 kg unit

Base Component

Appearance	Clear Liquid
Colour	Light amber
Viscosity	5-7 poise at 77°F (25°C)
Density	1.16 g/cm ³

Solidifier Component

Appearance	Clear Liquid
Color	Amber
Viscosity	0.5-1.5 poise at 77°F (25°C)
Density	1.00 g/cm ³
VOC content (ASTM D2369 / EPA ref.24)	2.89% / 32.8 g/L

Mixing Ratio

For mixing small quantities the mixing ratio of the components is:

Base : Solidifier	
by weight:	2.4 : 1
by volume:	2 : 1

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:

Wet (H10 wheels)	427 mm ³
Dry (CS17 wheels)	72 mm ³

ADHESION

Tensile Shear

The tensile shear adhesion to steel when tested in accordance with ASTM D1002 is typically 2,700 psi (18.61 MPa).

Positest Dolly Pull-Off (ASTM D4541)

Dry concrete	500 psi (3.45 MPa)*
Wet concrete	475 psi (3.27 MPa)*
Dry quarry tiles	1100 psi (7.58 MPa)*
Damp quarry tiles	450 psi (3.10 MPa)*

*cohesive failure within substrate

CHEMICAL RESISTANCE

Once fully cured, the material will demonstrate excellent resistance to most commonly found inorganic acids and alkalis at concentrations up to 20%.

The material is also resistant to hydro-carbons, mineral oils, lubricating oils and many other commonly found chemicals.

* For a more detailed description of chemical resistance properties, refer to relevant Chemical Resistance chart.

COMPRESSIVE PROPERTIES

Compressive Strength

The compressive strength of the material when tested to ASTM D695 is typically:

13,000 psi (89.63 MPa)

FLEXURAL PROPERTIES

Flexural Strength

The flexural strength of the material when tested to ASTM D790 is typically:

13,000 psi (89.63 MPa)

HARDNESS

Shore D

The Shore D hardness of the material when tested in accordance with ASTM D2240 is typically: 82.

HEAT RESISTANCE

Heat Distortion Temperature (HDT)

Tested in accordance with ASTM D648 (264 psi fiber stress) is typically 106°F (41°C).

Dry Heat Resistance

The indicated degradation temperature in air based on Differential Scanning Calorimetry (DSC) operated in accordance with ISO11357 is typically 320°F (160°C).

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

TENSILE PROPERTIES

Tensile Strength

The tensile strength of the material when tested to ASTM D638 is typically:

4,600 psi (31.71 MPa)

SHRINKAGE

The material, when tested in accordance with ASTM C157, will show no measurable shrinkage during cure.

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 32°F (0°C) and 86°F (30°C).

APPROVALS/ACCEPTANCES

The material has received recognition from organizations worldwide including:
U.S.D.A.

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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 4151 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.
14300 N.W. 60th Ave,
Miami Lakes, FL, USA, 33014

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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