

PRODUCT SPECIFICATION SHEET

BELZONA 5812DW

FN10184



GENERAL INFORMATION

Product Description

A two component solvent free system applied by brush or spray for protection of metallic and non-metallic surfaces operating under immersion conditions in contact with water and aqueous solutions when potable water approval is required.

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:

- Cooling tower pans
- Submersible pumps
- Water boxes
- Manholes
- Internal and external pipework
- Steel and concrete piling
- Valves
- Fittings
- Tanks

APPLICATION INFORMATION

Working Life

Will vary according to the temperature. At 68°F (20°C), the usable life of the mixed material is 30 minutes.

Coverage Rate

Applied at a thickness of 10 mils (250 microns) per coat, a theoretical coverage rate of 43 sq. ft (4 m²) / liter should be achieved. Refer to Belzona IFU for guidance with regard to practical coverage rates.

Cure Time

The cure time is dependent on ambient temperature. Allow to cure for the times shown in the Belzona IFU before subjecting it to the conditions indicated.

Base Component

Appearance Viscous liquid
Color Grey or Blue
Density 1.52 - 1.56 g/cm³

Solidifier Component

Appearance Clear mobile liquid
Color Red brown
Density 1.00 - 1.02 g/cm³

Mixed Properties

Mixing Ratio by Weight (Base : Solidifier) 4.7 : 1
Mixing Ratio by Volume (Base : Solidifier) 3 : 1
Mixed Density 1.39 - 1.41 g/cm³
VOC content (ASTM D2369/EPA ref. 24) 0.45%/6.3 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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ADHESION

Tensile Shear

When tested in accordance with ASTM D1002, using metal substrates, grit blasted to a 3-4 mil (75-100 micron) profile, typical values will be:

Aluminum	7 days at 72°F (22°C) 2,000 psi (13.8 MPa)
Mild steel	2,990 psi (20.6 MPa)
Copper	2,990 psi (20.6 MPa)
Stainless steel	3,040 psi (21.0 MPa)

Pull Off Adhesion (ASTM D 4541)

Dry concrete	2 days at 72°F (22°C) > 500 psi (3.45 MPa)*
Wet concrete	455 psi (3.14 MPa)*
<i>*Cohesive failure of substrate</i>	
Grit Blasted Steel	7 days at 72°F (22°C) 3,770 psi (26.0 MPa)

COMPRESSIVE STRENGTH

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

8,000 psi (55.2 MPa)	7 days at 72°F (22°C)
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FLEXURAL STRENGTH

When tested to ASTM D790, typical values obtained will be:

5,930 psi (40.9 MPa)	7 days at 72°F (22°C)
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ABRASION

Taber

The Taber abrasion resistance using CS17 wheels dry and 1kg load is typically:

76 mm³ loss of coating per 1000 cycles.

HARDNESS

Shore D

The Shore D hardness of the material tested to ASTM D2240 is typically:

84	7 days at 72°F (22°C)
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Koenig Pendulum

When tested to ISO 1522, the Koenig damping time of the coating will typically be:

108 seconds	7 days at 72°F (22°C)
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HEAT RESISTANCE

Heat Resistance

For many typical applications, the material is suitable for continuous immersion in aqueous solutions up to 122°F (50°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).

Atlas Cell Cold Wall Immersion Test

Atlas Cell Immersion Resistance, when determined in accordance with NACE TM0174 procedure A, will result in no rusting (ASTM D610 rating 10) or blistering (ASTM D714 rating 10) after 6 months continuous immersion in drinking water at 122°F (50°C).

**Municipal water supply, Miami, FL, United States.*

IMPACT STRENGTH

The Izod impact strength (notched) of the material when tested in accordance with ASTM D256 is typically:

2.24 ft.lb/in ² (4.7 KJ/m ²)	7 days at 72°F (22°C)
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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).

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POTABLE WATER APPROVAL

NSF

Certified to NSF/ANSI 61 for contact with drinking water subject to the following restrictions:
For use on fitting and valves of ≥ 4 inch diameter
For use on pipes of ≥ 6 inch diameter
For use on tanks ≥ 500 gallons



Certified to
NSF/ANSI 61

KC

Listed in Barrier Materials as epoxy resin-based waterproof and anticorrosion material, which has passed full test of sanitation and safety.



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 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 5812DW 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
United Kingdom

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

HEALTH AND SAFETY

Prior to using this material, please consult the relevant 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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