

# PRODUCT SPECIFICATION SHEET

## BELZONA 5812DW

FN10203



### 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 | - Manholes                       | - Valves   |
| - Submersible pumps  | - Internal and external pipework | - Fittings |
| - Water boxes        | - Steel and concrete piling      | - Tanks    |

### APPLICATION INFORMATION

#### Working Life

Will vary according to the temperature. At 68°F (20°C), the usable life of the mixed material is 1 hour.

#### Coverage Rate

Applied at a thickness of 10 mils (250 microns) per coat, a theoretical coverage rate of 43 sq. ft (4 m<sup>2</sup>) / 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/cm <sup>3</sup>

#### Solidifier Component

Appearance	Clear mobile liquid
Color	Yellow
Density	0.99 - 1.01 g/cm <sup>3</sup>

#### Mixed Properties

Mixing Ratio by Weight (Base : Solidifier)	4 : 1
Mixing Ratio by Volume (Base : Solidifier)	2.6 : 1
Mixed Density	1.38 - 1.40 g/cm <sup>3</sup>
VOC content (ASTM D2369/EPA ref. 24)	0.51%/7.1 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:

	7 days at 72°F (22°C)
Aluminum	1,940 psi (13.4 MPa)
Mild steel	3,130 psi (21.6 MPa)
Copper	1,610 psi (11.1 MPa)
Stainless steel	2,840 psi (19.6 MPa)

#### Pull Off Adhesion (ASTM D 4541)

	2 days at 72°F (22°C)
Dry concrete	610 psi (4.21 MPa)*
Wet concrete	455 psi (3.17 MPa)*

\*Cohesive failure of substrate

	7 days at 72°F (22°C)
Grit Blasted Steel	> 3,000 psi (20.7 MPa)

### COMPRESSIVE STRENGTH

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

7,310 psi (50.4 MPa)	7 days at 72 °F (22 °C)
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### FLEXURAL STRENGTH

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

6,540 psi (45.1 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:

67 mm<sup>3</sup> loss of coating per 1000 cycles.

### HARDNESS

#### Shore D

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

82	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:

103 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). Please consult Belzona TKL for additional advice where immersed application will operate close 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 302 °F (150 °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 tap water at 104°F (40 °C).

### IMPACT STRENGTH

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

2.28 ft.lb/in <sup>2</sup> (4.8 KJ/m <sup>2</sup> )	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/ANSI/CAN 61

Belzona 5812DW has been tested and certified by WQA against NSF/ANSI/CAN 61.

Note: Belzona 5812DW has been found to meet the extraction limits of NSF/ANSI/CAN 600.



C US

#### KC

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



Contact Belzona for more details on these approvals or any other approvals or certifications not stated herein.

### 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 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 / SUPPLIER

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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