

PRODUCT SPECIFICATION SHEET

BELZONA 5811DW2

FN10124



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 temperature. At 68°F (20°C) the usable life of mixed material is 30 minutes.

Coverage Rate

Applied at a thickness of 10 mil (250 microns) per coat, a theoretical coverage rate of 43 sq.ft(4 m²)/litre 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
Colour Cream or Grey
Density 1.56 - 1.60 g/cm³

Solidifier Component

Appearance Clear mobile liquid
Colour Dark brown
Density 0.96 - 1.00 g/cm³

Mixed Properties

Mixing Ratio by Weight (Base : Solidifier) 4 : 1
Mixing Ratio by Volume (Base : Solidifier) 2.5 : 1
Mixed Density 1.39 - 1.43 g/cm³

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:

	Ambient Cure	Post Cure
Aluminum	1,730 psi (11.9MPa)	2,040 psi (14.1MPa)
Mild steel	2,020 psi (13.9MPa)	3,250 psi (22.4MPa)
Copper	1,650 psi (11.4MPa)	2,030 psi (14.0MPa)
Stainless steel	2,340 psi (16.1MPa)	2,900 psi (20.0MPa)

Pull Off Adhesion

When tested in accordance with ASTM D 4541/ ISO 4624, the pull off strength from grit blasted steel will be typically:

4,450 psi (30.7MPa)

COMPRESSIVE STRENGTH

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

2,060 psi (14.2MPa)	ambient cure
4,220 psi (29.1MPa)	post cure

ELECTRICAL PROPERTIES

When tested in accordance with ASTM D149, method A, with voltage rise of 2kV/s, typical value will be:

Dielectric strength	42.7 kV/mm
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FLEXURAL STRENGTH

When tested to ASTM D790 typical values obtained will be:

2,360 psi (16.3MPa)	ambient cure
4,240 psi (29.2MPa)	post cure

HARDNESS

Shore D & Barcol Hardness

The Shore D and Barcol hardness, when determined in accordance with ASTM D2240 and ASTM D2583, will typically be:

	Ambient cure (68°F/20°C)	Post cure (212°F/100°C)
Shore D	75	75
Barcol 935	52	71

Koenig Pendulum

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

82 seconds	ambient cure
126 seconds	post cure

HEAT RESISTANCE

Heat Distortion Temperature

Tested to ASTM D648 (264 psi fibre stress), typical values obtained will be:

105°F (40°C)	ambient cure
111°F (44°C)	post cure

Wet Heat Resistance / Atlas Cell Testing

In the presence of a cold wall, when tested in accordance with NACE TM 0174 procedure A, the coating will exhibit no blistering or rusting after 6 months immersion in water at 104°F (40°C).

In the absence of a cold wall, when tested in accordance with ISO 2812-2 and NACE TM 0174 procedure B, the coating will exhibit no blistering or rusting after 6 months immersion in water at 140°F (60°C).

Dry Heat Resistance

The indicated degradation temperature in air based on Differential Scanning Calorimetry (DSC) operated in accordance with ISO11357 is typically 248°F (120°C).

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

IMPACT STRENGTH

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

1.74 kJ/m ² (20 J/m)	ambient cure
3.48 kJ/m ² (40 J/m)	post-cure

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POTABLE WATER

WRAS

Listed in the UK Water Fittings Directory under "Materials which have passed full tests of effect on water quality".

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 41°F (5°C) and 86°F (30°C).

APPROVALS/ACCEPTANCES

The material has received recognition from organizations worldwide including:

ATTESTATION DE CONFORMITE SANITAIRE (ACS)
U.S.D.A.
W.R.A.S.

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 5811DW2 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, UK

Belzona Inc.
14300 NW 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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