

# PRODUCT SPECIFICATION SHEET

## BELZONA 2141

FN10051



### GENERAL INFORMATION

**Product Description:**

A two component, elastomeric material designed for coating applications requiring cavitation and erosion resistance.

**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:

- Pipes
- Kort nozzles
- Hydroelectric turbines
- Pumps
- Propellers
- Valves
- Rudders

Use in conjunction with **Belzona 2941** conditioner for maximum adhesion to metal surfaces.

### APPLICATION INFORMATION

**Working Life**

Will vary according to temperature. At 77°F (25°C) the usable life of mixed material is 13 minutes.

**Cure Time**

Will be reduced for thicker sections and extended for thinner applications. Allow to solidify for the times shown in the Belzona IFU before subjecting it to the conditions indicated.

**Coverage Rate**

Applied at a thickness of 40 mil. (1 mm), each 750 gram unit will cover an area of 6.6 sq.ft. (0.61 sq.m.).

**Volume Capacity**

55.5 cu.in. (909 cc)/kg.  
41.6 cu.in. (682 cc) per 750 gm. unit.

**Base Component**

Appearance Pale straw coloured viscous liquid  
Density 1.1 - 1.2 g/cm<sup>3</sup>  
Viscosity 190-330 P at 77°F/25°C

**Solidifier Component**

Appearance Paste  
Colour Black or Green  
Density 1.02-1.05 g/cm<sup>3</sup>  
Gel strength 50 - 150 HF

**Mixed Properties**

Appearance Black or green liquid  
Density 1.1 g/cm<sup>3</sup>  
Sag Resistance > 50 mil. (1.25 mm)

*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 Taber abrasion resistance when tested in accordance with ASTM D4060 with 1 kg load is typically:

H18 Wheels (Wet)  
at 70°F (21°C) 39 mm<sup>3</sup>loss per 1000 cycles

H18 Wheels (Dry)  
at 70°F (21°C) 50 mm<sup>3</sup>loss per 1000 cycles

### ADHESION

#### 90° Peel Adhesion

When tested in accordance with ASTM D429 (modified), typical adhesion value achieved when the material is used in conjunction with the designated surface will be:

Mild steel 180 pli (3214 kg/m)

Note  
Belzona Elastomer Conditioner is required to achieve adhesion.

### CAVITATION RESISTANCE

The cavitation resistance of the product, when tested to a modified version of ASTM G32, using an ultrasonic transducer vibrating at 20 kHz, typically shows the following results:

Wave Amplitude (μm)	Volume Loss (mm <sup>3</sup> /hr)
36	0.07
50	5.50

Please contact Belzona for additional testing details.

### ELONGATION & TENSILE PROPERTIES

#### Elongation

Tested in accordance with ASTM D412 (Die C) typical value will be: 530%.

#### Tensile Strength:

Tested in accordance with ASTM D412 (Die C) typical value will be: 2200 psi (15.2 MPa).

### ENCAPSULATION IMMERSION RESISTANCE

Testing has demonstrated that **Belzona 2141** in conjunction with **Belzona 2941** and **Belzona 8411**, will prevent corrosion on steel substrates in immersed conditions and can be peeled back when maintenance or inspection is required.

### HARDNESS

#### Shore A Hardness:

Tested in accordance with ASTM D2240 typical value will be: 87.

### HEAT RESISTANCE

For many typical anti-cavitation applications the product is suitable for operation at temperatures up to 104°F (40°C).

For other dry applications the product is thermally stable up to 212°F (100°C).

### TEAR STRENGTH

#### Tear Strength

Tested in accordance with ASTM D624 is typically 380 pli. (6786 kg/m).

### SHELF LIFE

Separate base and solidifier components shall have a shelf life of 3 years from date of manufacture when stored in their original unopened containers between 41°F (5°C) and 86°F (30°C).

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### 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 2141** 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.

### HEALTH AND SAFETY

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

### MANUFACTURER / SUPPLIER

Belzona Limited,  
Claro Road, Harrogate,  
HG1 4DS, UK

Belzona Inc.  
14300 NW 60<sup>th</sup> Ave,  
Miami Lakes, FL, 33014, USA

### 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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