

# Belzona 5841

FN10103



## INSTRUCTIONS FOR USE

### 1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Belzona® 5841 is tolerant of surface preparation. It is, however, recommended that the best possible surface preparation is carried out. As a minimum, substrate surface must always be clean and firm.

#### RECOMMENDED PROCEDURE

- i) Brush away loose contamination and degrease with a rag soaked in **Belzona® 9111** (cleaner/degreaser) or any other effective cleaner which does not leave a residue e.g. methyl ethyl ketone (MEK). Use a flame to sweat out oil from deeply impregnated surfaces.
- ii) Blast clean the metal surface to achieve the following minimum standard of cleanliness:  
ISO 8501-1 Sa 2 thorough blast cleaning  
SSPC SP-6 commercial blast cleaning  
Swedish Standard Sa 2 SIS 05 5900.
- iii) UHP Hydroblasting (2000 - 2500 bar) to remove previous coatings and expose original profile.
- iv) Power tool clean (MBX Bristle Blaster, grinders etc.) in accordance with SSPC-SP3 to remove contamination and achieve a minimum SSPC-SP11 bare metal power tool cleaned surface (ISO 8501-1 grade St 3).

#### WHERE BELZONA® 5841 SHOULD NOT ADHERE

Brush on a thin layer of **Belzona® 9411** (Release Agent) and allow to dry for 15-20 minutes before proceeding to step 2.

### 2. COMBINING THE REACTIVE COMPONENTS

Transfer the entire contents of the Solidifier container into the Base container. Mix thoroughly together to achieve a uniform material free of any streakiness.

#### NOTES:

##### 1. MIXING AT LOW TEMPERATURES

To ease mixing when the material temperature is below 50°F (10°C), warm the Base and Solidifier modules until the contents attain a temperature of 68-77°F (20-25°C).

##### 2. APPLICATION TEMPERATURES

**Belzona® 5841** is designed to be applied to warm surfaces between 86°F and 176°F (30°C and 80°C).

### 3. WORKING LIFE

From the commencement of mixing, **Belzona® 5841** must be used within the times shown below.

Temperature	50°F (10°C)	77°F (20°C)	86°F (30°C)
Use all material within	2 hours	1 hour	30 min

### 4. MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 5841** use:  
4 parts Base to 1 parts Solidifier by volume  
8.5 parts Base to 1 parts Solidifier by weight

### 3. APPLYING BELZONA® 5841

#### FOR BEST RESULTS

##### Do not apply when:

- (i) Rain, snow, fog or mist is present.
- (ii) There is moisture on the metal surface or is likely to be deposited by subsequent condensation.
- (iii) The working environment is likely to be contaminated by oil/grease from adjacent equipment or smoke from kerosene heaters or tobacco smoking.

#### a) FIRST COAT

Apply the **Belzona® 5841** directly on to the hot prepared surface with a short bristled brush. The substrate temperature must be between 86°F and 176°F (30°C and 80°C) for acceptable cure.

The applied coating thickness will depend on the substrate temperature, see below. Use a wet film thickness gauge to regularly check that the correct film thickness is being achieved.

Substrate temperature	Wet Film Thickness/coat	Theoretical coverage rate/coat
86°F (30°C)	8 mils (200 microns)	27 sq.ft./kg (2.5 m²/kg)
122°F (50°C)	6 mils (150 microns)	35.6 sq.ft./kg (3.31 m²/kg)
176°F (80°C)	4 mils (100 microns)	53.6 sq.ft./kg (4.98 m²/kg)

**b) SECOND COAT**

As soon as possible after application of the first coat, apply a further coat of **Belzona® 5841** as in (a) above. The minimum overcoating time will be dependent on the temperature of the substrate, as indicated in the table below:

Substrate temperature	Touch dry time
86°F (30°C)	2½ hours
122°F (50°C)	1 hour
176°F (80°C)	20 min

The maximum recommended overcoating time is 24 hours, irrespective of cure temperature.

**c) THEORETICAL COVERAGE RATES**

Coverage rate is also dependent on substrate temperature. For a two coat system:

Substrate temperature	Theoretical coverage rate
86°F (30°C)	13.5 sq.ft. (1.25 m <sup>2</sup> )/kg
122°F (50°C)	17.8 sq.ft. (1.66 m <sup>2</sup> )/kg
176°F (80°C)	26.8 sq.ft. (2.49 m <sup>2</sup> )/kg

**d) PRACTICAL COVERAGE RATES**

In practice many factors influence the exact coverage rate achieved. On rough surfaces such as pitted steel the coverage rate achieved may be reduced by up to 20%.

**NOTES:****1. CLEANING**

Brushes or any other application tools should be cleaned using a suitable solvent such as **Belzona® 9121**, MEK, acetone or cellulose thinners.

**2. DIFFERENTIATION BETWEEN LAYERS**

**Belzona® 5841** is available in two different colours, blue and grey, to facilitate application and to prevent misses. In service the colour of the applied product may change.

**4. COMPLETION OF THE MOLECULAR REACTION**

**Belzona® 5841** will continue to cure whilst the substrate remains hot. Cure times will depend on the substrate temperature, as indicated in the table below:

Substrate temperature	Touch dry/Light loading	Full cure
86°F (30°C)	2½ hours	24 hours
122°F (50°C)	1 hour	16 hours
176°F (80°C)	20 min.	8 hours

**HEALTH & SAFETY INFORMATION**

Please read and make sure you understand the relevant Safety Data Sheets.

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