

# Belzona 1341

FN10139 (SUPERMETALGLIDE)



## INSTRUCTIONS FOR USE

### 1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

#### METALLIC SURFACES - APPLY ONLY TO BLAST CLEANED SURFACES

- 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).
- Select an abrasive to give the necessary standard of cleanliness and a minimum depth of profile of 3 mils (75 microns).  
Use only an angular abrasive.
- Blast clean the metal surface to achieve the following standard of cleanliness:  
ISO 8501-1 Sa 2½ very thorough blast cleaning.  
American Standard near white finish SSPC SP 10.  
Swedish Standard Sa 2½ SIS 05 5900.
- After blasting, metal surfaces should be coated before any oxidation of the surface takes place.

#### SALT CONTAMINATED SURFACES

Metal surfaces that have been immersed for any periods in salt solutions e.g. sea water, should be blasted to the required standard, left 24 hours to allow any ingrained salts to sweat to the surface and then washed prior to a further brush blast to remove these. This process may need to be repeated to ensure complete removal of salts. The soluble salt contamination of the prepared substrate, immediately prior to application, should be less than 30mg/m<sup>2</sup> (3µg/cm<sup>2</sup>).

#### PIT FILLING

All welds should be prepared to NACE SP0178 Grade C or better. Deep pitting and rough welds should be smoothed out with **Belzona® 1111**, **Belzona® 1311** or **Belzona® 1151** mixed, applied and overcoated in accordance with the relevant IFU.

### 2. COMBINING THE REACTIVE COMPONENTS

- Stir the contents of the Base container thoroughly to reincorporate any settlement.
- 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 LARGE UNITS

When mixing 5 kg. units of **Belzona® 1341**, use a mechanical mixer, ensuring that material on the side and at the corners of the container is fully incorporated. Avoid incorporation of excessive amounts of air into the mixed material.

##### 2. 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).

##### 3. WORKING LIFE

From the commencement of mixing, **Belzona® 1341** must be used within the times shown below.

Temperature	50°F (10°C)	59°F (15°C)	77°F (25°C)	86°F (30°C)	104°F (40°C)
Use all material within	70 min.	60 min.	40 min.	30 min.	18 min.

##### 4. MIXING SMALL QUANTITIES

For mixing small quantities of **Belzona® 1341** use:  
1 part Base to 1 part Solidifier by volume  
100 parts Base to 70 parts Solidifier by weight.

##### 5. VOLUME CAPACITY OF MIXED BELZONA® 1341

21.5 cu.in. (352 cm<sup>3</sup>) per 500g unit  
215 cu.in. (3.52 liters) per 5 kg unit.

### 3. APPLYING BELZONA® 1341

#### FOR BEST RESULTS

##### Do not apply when:

- The temperature is below 50°F (10°C) or the relative humidity is above 90%.
- Rain, snow, fog or mist is present.
- There is moisture on the metal surface or is likely to be deposited by subsequent condensation.
- The working environment is likely to be contaminated by oil/grease from adjacent equipment or smoke from kerosene heaters or tobacco smoking.

#### COVERAGE RATES

Recommended number of coats	2
Target thickness 1 <sup>st</sup> coat	10 mils (250 microns)
Target thickness 2 <sup>nd</sup> coat	10 mils (250 microns)
Minimum total DFT	16 mils (400 microns)
Maximum total DFT	Only limited by sag resistance
Theoretical coverage rate 1 <sup>st</sup> coat	30.3 sq.ft. (2.82 m <sup>2</sup> )/kg
Theoretical coverage rate 2 <sup>nd</sup> coat	30.3 sq.ft. (2.82 m <sup>2</sup> )/kg
Theoretical coverage rate to achieve minimum recommended system thickness	18.9 sq.ft. (1.76 m <sup>2</sup> )/kg

#### PRACTICAL COVERAGE RATES

Appropriate loss factors must be applied to the above coverage rates. In practice, many factors influence the actual coverage rate achieved. On rough surfaces such as pitted steel the

practical coverage rate will be reduced. Application at low temperatures will also reduce practical coverage rates further.

a) **FIRST COAT**

Apply the **Belzona® 1341** directly on to the prepared surface with a stiff bristled brush or with the plastic applicator provided at the recommended coverage rate.

b) **SECOND COAT**

As soon as possible after application of the first coat, apply a further coat of **Belzona® 1341** as in (a) above. This time will be 4 - 6 hours at 68°F (20°C). The first coat must not be left longer than 24 hours before overcoating, irrespective of temperature. Should this occur, then the surface should be brush blasted or abraded before commencing application.

**SPRAY APPLICATION**

On suitable areas, **Belzona® 1341** may be applied by heated airless spray. Typical set up would be 63:1 airless spray unit with either in-line heater or trace heated lines capable of raising product temperature to at least 122°F (50°C). Solvent must **NOT** be added. Please contact Belzona direct for more specific information.

**INSPECTION**

- a) Immediately after application of each unit, visually inspect for pinholes and misses. Where detected, these should be immediately brushed out.
- b) Once the application is complete and the coating is dimensionally stable (refer to "Movement or use involving no loading or immersion" column in section 4), carry out a thorough visual inspection to confirm freedom from pinholes and misses, and to identify any possible mechanical damage.
- c) Spark testing in accordance with NACE SP0274 can be carried out to confirm coating continuity. A voltage of 3.0kV is recommended to confirm that a minimum coating thickness of 16 mil (400 microns) has been achieved.

**COLOR**

**Belzona® 1341** is available in blue and gray to facilitate application and to prevent misses. These colors are for identification only and there will be some variation between batches. In service the color of the applied product may change.

**CLEANING**

Mixing tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent e.g. Methyl ethyl ketone (MEK). Brushes, injection guns, spray equipment and any other application tools should be cleaned using a suitable solvent such as **Belzona® 9121**, MEK, acetone or cellulose thinners.

**4. COMPLETION OF THE MOLECULAR REACTION**

Allow **Belzona® 1341** to solidify as below subjecting it to the conditions indicated.

Temperature	Movement or use involving no loading or immersion	Light loading	Full mechanical/ thermal loading or water immersion	Chemical contact
50°F/10°C	24 hours	48 hours	14 days	21 days
59°F/15°C	12 hours	24 hours	7 days	10 days
68°F/20°C	8 hours	16 hours	3 days	7 days
77°F/25°C	7 hours	14 hours	2½ days	6 days
86°F/30°C	6 hours	12 hours	2 days	5 days

**5. FINAL SOLIDIFICATION OF BELZONA® 1341**

When time is important and equipment usage is pressing, then by installing forced air heaters and taking steps to contain this heat around the equipment being reclaimed, final solidification time can be as little as 24 hours. Application of heat should not be carried out until the **Belzona® 1341** has initially gelled (typically 4 hours at 68°F (20°C) and the material temperature should not exceed 122°F (50°C).

Due allowance must be made for "warming up". If there is any doubt regarding final solidification then **BE SAFE - MAKE MORE TIME.**

**HEALTH & SAFETY INFORMATION**

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

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