Belzona 5851

FN10104 (HA-BARRIER)

BELZONA®
Repair • Protect • Improve

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Belzona® 5851 is tolerant of surface preparation, however, it is recommended that the best possible surface preparation is carried out. As a minimum, substrate surface must always be clean and firm.

RECOMMENDED PROCEDURE

Brush away loose contamination and remove obvious oil and grease using a suitable cleaner.

Once clean, roughen substrate.

Preferred

i) 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.

Alternatively the following may be considered

ii) Water jet to remove all existing dirt grease and oil, loose material and coatings and where possible reveal the original surface profile. (NACE WJ2 – SSPC SP WJ2)

or

iii) Clean to achieve an SSPC-SP11 bare metal power tool cleaned surface.

or

iv) Power tool clean (MBX Bristle Blaster, grinders etc.) in accordance with SSPC-SP3 (ISO 8501-1 grade St 3) to remove all loosely adherent coatings and contamination.

NOTE:
The better the surface preparation, the longer the service life.

SURFACES ALREADY REBUILT WITH BELZONA® 1251 (HA-METAL)

a) If overcoating takes place within 2 hours, no further surface preparation is required.

b) After this maximum overcoating time has elapsed roughen the **Belzona® 1251** preferably by brush blasting before applying **Belzona® 5851**.

2. APPLYING BELZONA® 5851

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.

Belzona® 5851 is a single component product and so no mixing or measuring is required. Cure will not commence until the product is heated, hence the usable life is effectively unlimited, providing the material is stored as described in Section 4.

NOTE:
See special instructions for reinforcing areas at risk from immersion.

a) FIRST COAT
Apply the **Belzona® 5851** directly on to the hot prepared surface with a short bristled brush. The substrate temperature must be between 158°F (70°C) and 302°F (150°C) for acceptable cure.

In order to achieve the correct film thickness of 8 mils (200 microns) per coat, apply the material at a theoretical coverage rate of 25 sq.ft. (2.4 m²) per kg. Use a wet film thickness gauge to regularly check that the correct film thickness is being achieved.

b) SECOND COAT
As soon as possible after application of the first coat, apply a further coat of **Belzona® 5851** 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
158°F (70°C)	24 hours
176°F (80°C)	16 hours
194°F (90°C)	4 hours
212°F (100°C)	2 hours
248°F (120°C)	30 minutes
302°F (150°C)	10 minutes

The maximum recommended overcoating time is 7 days, irrespective of cure temperature.

REINFORCED SYSTEM
In areas at risk of regular immersion the following system should be adopted.

Apply the first coat of **Belzona® 5851** as in 2a above. Immediately lay a layer of **Belzona® 9361** Reinforcing Sheet into the surface, ensuring no air is trapped beneath and all creases are removed. Cut the sheet to follow surface profile.

Apply further **Belzona® 5851** to completely wet out the surface of the **Belzona® 9361.** As a guide, a coverage rate of 12.5 sq.ft. (1.2 m²) per kg should be aimed for.

As soon as possible apply a further coat of **Belzona® 5851** as in 2b above.

THEORETICAL COVERAGE RATES
The theoretical coverage rate for the two coat system will be 12.5 sq. ft. (1.2 m²) per kg. The theoretical coverage rate for a reinforced system will be 8.6 sq.ft. (0.8 m²) per kg.

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® 5851 is currently available only in grey but the coating will go from gloss to matt during cure, hence it is possible to differentiate between layers during overcoating.

3. COMPLETION OF THE MOLECULAR REACTION

Belzona® 5851 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
158°F (70°C)	24 hours	7 days
176°F (80°C)	16 hours	5 days
194°F (90°C)	4 hours	3 days
212°F (100°C)	2 hours	2 days
248°F (120°C)	30 minutes	1 day
302°F (150°C)	10 minutes	16 hours

4. STORAGE

Due to the heat cure mechanism of this material, when not in use, avoid storing the product near heat sources and, if possible, keep refrigerated. Shelf life at 68°F (20°C) will be at least 24 months.

HEALTH & SAFETY INFORMATION
Please read and make sure you understand the relevant Safety Data Sheets.

Belzona products are manufactured under an ISO 9001 Registered Quality Management System

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