Belzona 5831

FN10102 (ST-BARRIER)

BELZONA®
Repair • Protect • Improve

INSTRUCTIONS FOR USE

1. SURFACE PREPARATION

Belzona® 5831 is tolerant of surface contamination and can be applied directly to wet and oily surfaces, however it is recommended that the best possible surface preparation is carried out. As a minimum, the substrate must always be firm and free from loose corroded material, mill scale, dust, and any other loose debris."

RECOMMENDED PROCEDURE

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.

or

ii) UHP Hydroblasting (2000 - 2500 bar) to remove previous coatings and expose original profile.

or

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

iv) Cathodic protection systems must be isolated/disconnected and surface allowed to de-polarize.

v) It is important to remove contaminants such as salt from above water surfaces.

vi) Grit blasting as in i) above is recommended for applications exposed to continuous or regular immersion.

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

CONCRETE SURFACES

i) Remove all paint, tar and any other coatings.

ii) Any surface to which **Belzona® 5831** is to be applied must be clean, firm and as dry as possible. Wash old concrete down with detergent to remove oil, grease and dust. Use clean water to wash away the detergent.

iii) Allow new concrete to cure for a minimum of 28 days or until the moisture content is below 6% using a Protimeter.

iv) Blast clean or mechanically scarify the surface to remove all loose material and surface laitance.

NOTE:
Porous surfaces such as concrete must be as dry as possible with no pooled water visible. Such surfaces are not suitable for coating underwater.

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.

MIXING SMALL QUANTITIES
For mixing small quantities of **Belzona® 5831** use:
1 parts Base to 1 parts Solidifier by volume
1.75 parts Base to 1 parts Solidifier by weight.

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

WORKING LIFE
From the commencement of mixing, **Belzona® 5831** must be used within the times shown below.

Temperature	10°C (50°F)	20°C (68°F)	30°C (86°F)	40 °C (104°F)
Use all material within	70 mins	45 mins	30 mins	20 mins

3. APPLYING BELZONA® 5831

Coverage rates

Recommended number of coats	2
Target thickness 1st coat	300 microns (12 mils)
Target thickness 2nd coat	300 microns (12 mils)
Minimum total DFT	400 microns (16 mils)
Maximum total DFT	Only limited by sag resistance
Theoretical coverage rate 1st coat	3.3 m²/liter (35.5 ft²/liter)
Theoretical coverage rate 2ndcoat	3.3 m²/liter (35.5 ft²/liter)
Theoretical coverage rate to achieve minimum recommended system thickness	2.5 m²/liter (27 ft²/liter)

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 and concrete the practical coverage rate will be reduced. Application at low temperatures will also reduce practical coverage rates further.
Application under water will reduce coverage rates further.

a) **FIRST COAT**
Apply the **Belzona® 5831** directly on to the prepared surface with a short bristled brush, scrubbing the product well into the surface to ensure complete wetting.

b) **SECOND COAT**
As soon as possible after application of the first coat, apply a further coat of **Belzona® 5831** as in (a) above. This time will be 6 - 8 hours at 20°C (68°F) or 16 hours at 5°C (41°F). The first coat must not be left longer than 72 hours before overcoating, irrespective of temperature. Should this occur, then the surface should be brush blasted or abraded before commencing application.

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, 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 SP0188 can be carried out to confirm coating continuity. A voltage of 2.5kV is recommended to confirm that a minimum coating thickness of 16 mil (400 microns) has been achieved.

NOTES:
1. CLEANING
Mixing tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent e.g. Methyl Ethyl Ketone (MEK). Brushes and any other application tools should be cleaned using a suitable solvent such as **Belzona® 9121**, MEK, Acetone or cellulose thinners.

2. COLOR
Belzona® 5831 is available in two colors 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.

4. COMPLETION OF THE MOLECULAR REACTION

Belzona® 5831 will solidify under cold, damp and submerged conditions. However, solidification time is dependent on ambient temperature, the lower the temperature the longer the solidification time.

Allow **Belzona® 5831** to solidify as below before subjecting it to the conditions indicated.

Temperature	Light pedestrian traffic	Full mechanical cure
50°F/10°C	48 hours	14 days
68°F/20°C	24 hours	5 days
86°F/30°C	12 hours	2 days
104°F/40°C	6 hours	1 day

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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