Belzona 1131

(BEARING METAL)

BELZONA®
Repair • Protect • Improve

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

APPLY ONLY TO CLEAN, FIRM, DRY AND WELL ROUGHENED SURFACES

a) 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.

b) Roughen surfaces by blast cleaning, deeply scoring or grinding.

c) Finally degrease again. Use clean rags to avoid spreading contamination.

WHERE BELZONA® 1131 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 Base and Solidifier modules on to the **Belzona® Working Surface**. Mix thoroughly together to achieve a uniform material free of any streakiness.

1. MIXING AT LOW TEMPERATURES
To ease mixing when the material temperature is below 41°F (5°C), warm the Base and Solidifier modules until the contents attain a temperature of 68-77°F (20-25°C).

2. WORKING LIFE
From the commencement of mixing, **Belzona® 1131** must be used within the times shown below.

Temperature	41°F (5°C)	59°F (15°C)	77°F (25°C)
Use all material within	35 min.	25 min.	15 min.

3. MIXING SMALL QUANTITIES
For mixing small quantities of **Belzona® 1131** use:
3 parts Base to 1 part Solidifier by volume
4 parts Base to 1 part Solidifier by weight

4. VOLUME CAPACITY OF MIXED BELZONA® 1131
35.1 cu.in. (575 cm³) per kg.

3. APPLYING BELZONA® 1131

FOR BEST RESULTS
Do not apply when:
(i) The temperature is below 41°F (5°C) or the relative humidity is above 90%.
(ii) Rain, snow, fog or mist is present.
(iii) There is moisture on the metal surface or is likely to be deposited by subsequent condensation.
(iv) The working environment is likely to be contaminated by oil/grease from adjacent equipment or smoke from kerosene heaters or tobacco smoking.

a) Apply the **Belzona® 1131** directly on to the prepared surface with the plastic applicator or spatula provided.

b) Press down firmly to fill all cracks, remove entrapped air, and ensure maximum contact with the surface.

c) Contour the **Belzona® 1131** to the correct profile and allow to cure before machining to the final dimensions. Alternatively, suitable formers can be utilized to cast the components to its final dimensions.

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

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4. COMPLETION OF THE MOLECULAR REACTION

Allow **Belzona® 1131** to solidify as below subjecting it to the conditions indicated.

Temper-ature	Movement or use involving no loading or immersion	Machining and/or light loading	Full mechanical or thermal loading
41°F/ 5°C	4 hours	6 hours	4 days
50°F/10°C	3 hours	4 hours	2 days
59°F/15°C	2¼ hours	3 hours	1½ days
68°F/20°C	1¾ hours	2 hours	1 day
77°F/25°C	1 hour	1½ hours	20 hours
86°F/30°C	¾ hour	1 hour	16 hours

These times are for a thickness of approximately 0.25 inch (6 mm); they will be reduced for thicker sections and extended for thinner sections.

5. EFFECTING THE SECONDARY MOLECULAR REACTION

The mechanical properties, heat resistance and chemical resistance of **Belzona® 1131** will be improved by post curing.

After 2 - 4 hours of applying **Belzona® 1131**, post cure the material using forced air heaters, heat lamps, etc. for a minimum of 4 hours at 140-212°F (60-100°C).

Generally, the higher the post cure temperature adopted, the higher the properties attained.

6. APPLICATION OF A FURTHER LAYER OF BELZONA® 1131

When a further layer of **Belzona® 1131** is required, this should be applied as soon as possible after the first layer. Once **Belzona® 1131** has become dimensionally stable then the SURFACE MUST BE ROUGHENED OTHERWISE INTERCOAT ADHESION WILL BE IMPAIRED.

HEALTH & SAFETY INFORMATION

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

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