

Belzona 5711

FN10212



INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

BELZONA® 5711 HAS BEEN SPECIFICALLY DESIGNED TO REPAIR THE LEADING EDGE OF WIND TURBINE BLADES. BELZONA® 5711 SHOULD ONLY BE APPLIED ONTO STRUCTURALLY SOUND SURFACES.

SURFACE PREPARATION ONTO COMPOSITE BLADES

- Roughen surfaces to completely remove the gel coat from the surrounding area and abrade back to the composite. This can be completed using a mechanical sander with coarse paper e.g., orbital sander. Alternatively, other power tools or frost-blasting technique can also be used.
- If necessary, 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).

2. COMBINING THE REACTIVE COMPONENTS

For ease of mixing and application, **Belzona® 5711** is supplied in a cartridge within a protective aluminum outer foil. This outer aluminum foil sachet should not be opened until the product is ready to be used.

- Open the foil sachet and remove the cartridge and mixing nozzle.
- Remove screw cap from cartridge and fit the cartridge into a suitable manual or electric dispenser/cartridge gun for application.

Note: Exercise caution when using electric caulking gun. Recommendation is to operate on a slow speed setting. **Belzona® 5711** is not suitable for pneumatic dispenser.

- Extrude a small bead of **Belzona® 5711** to equalise the filling levels before attaching the supplied mixing nozzle.

1. USE AT LOW TEMPERATURES

To ensure cartridge integrity and ease of mixing, warm the cartridge until the contents attain a temperature of 15 °C (59 °F).

2. WORKING LIFE

Mixed material dispensed from the cartridge will have a working life as shown below:

Temperature	5 °C (41 °F)	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 °C (104 °F)
Working Life	18 min	16 min	12 min	10 min	8 min

Note: **Belzona® 5711** can cure and block the nozzle if left for a prolonged period of time, (the Working Life table can be used as an initial guide). If blocked, the mixing nozzle should be replaced.

3. VOLUME CAPACITY OF MIXED BELZONA® 5711

254 cm³ (15.5 cu.in.) per 400 g cartridge

3. APPLYING BELZONA® 5711

FOR BEST RESULTS

Do not apply when:

- The temperature is below 41 °F (5 °C) or the relative humidity is above 85%.
- Rain, snow, fog or mist is present.
- There is moisture on the 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.

3.1 CARTRIDGE APPLICATION

- Apply the mixed **Belzona® 5711** directly from the cartridge on to the prepared surface.
- Using the Belzona applicator or suitable application tool e.g., plastic former such as Belzona working surface, contour the **Belzona® 5711** to the blade surface pressing down firmly to ensure all defects are filled.

Note: Under normal conditions it should be possible to smooth and contour the **Belzona® 5711** to the leading edge thus avoiding the need for sanding. However, if required, the product can be easily sanded down following cure to remove imperfections, smooth the surface or create a profile for overcoating.

CLEANING

Any tools should be cleaned immediately after use with **Belzona® 9111** or any other effective solvent e.g., Methyl ethyl ketone (MEK) or acetone.

4. COMPLETION OF THE MOLECULAR REACTION

Allow **Belzona® 5711** to solidify as below subjecting it to the conditions indicated.

Temperature	Overcoatable	Sandable/Hard Dry
5 °C/41 °F	60 minutes	80 minutes
10 °C/50 °F	55 minutes	70 minutes
20 °C/68 °F	30 minutes	60 minutes
30 °C/86 °F	25 minutes	55 minutes
40 °C/104 °F	20 minutes	45 minutes

For service, **Belzona® 5711** is to be overcoated with **Belzona® 5721** to provide erosion resistance. Please consult the **Belzona® 5721** IFU for full curing requirements.

If overcoating with anything other than **Belzona® 5721**, the surface of **Belzona® 5711** must be abraded.

5. APPLICATION OF A FURTHER LAYER OF BELZONA® 5711 OR BELZONA® 5721

This can occur following the overcoatable time in section 4, for maximum overcoating window, please refer to the table below:

Temperature	0-65% Relative Humidity	65-85% Relative Humidity
5 °C/41 °F	24 hours	24 hours
10 °C/50 °F		
20 °C/68 °F		
30 °C/86 °F		
40 °C/104 °F		Must be sanded

After the maximum overcoating time has elapsed, the solidified **Belzona® 5711** must be roughened before applying a further layer.

6. SHELF LIFE

Belzona® 5711 shall have a shelf life of 3 years from date of manufacture when stored in the original unopened foil sachets between 5 °C (41 °F) and 30 °C (86 °F).

If any **Belzona® 5711** remains in the cartridge after use, the mixer should be removed, and the screw cap replaced to preserve shelf-life. The usability of remaining material will be dependent on storage conditions and the material should be checked for suitability prior to further use. Please contact Belzona for further information.

HEALTH & SAFETY INFORMATION

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

The technical data contained herein is based on the results of long term tests carried out in our laboratories and to the best of our knowledge is true and accurate on the date of publication. It is however subject to change without prior notice and the user should contact Belzona to verify the technical data is correct before specifying or ordering. No guarantee of accuracy is given or implied. We assume no responsibility for rates of coverage, performance or injury resulting from use. Liability, if any, is limited to the replacement of products. No other warranty or guarantee of any kind is made by Belzona, express or implied, whether statutory, by operation of law or otherwise, including merchantability or fitness for a particular purpose.

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