

# Belzona 5711

FN10232



## 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 2-component cartridge with a static mixer. To preserve shelf-life and ensure product quality, the cartridge is packaged within a foam insert and sealed in a protective outer foil sachet. This sachet should not be opened until the product is ready to use.

- Open the foil sachet using the tear notch and remove the cartridge and static mixer from the foam insert.
- Insert the cartridge into the 2-component Battery Dispenser. In order to ensure successful application, Belzona exclusively recommend that the Cox ElectraFlow Dual Ultra 400 MR be used.
- To level the pistons, remove the screw cap from the cartridge, adjust dispenser to the required low speed setting and slowly extrude product until two consistent beads of base and solidifier are dispensed.
- Attach the supplied static mixer, ensuring it is tightly screwed into place.
- Extrude material through the static mixer and adjust speed to achieve the desired product output. Typically, this will be setting 3 and above on the Cox ElectraFlow Dual Ultra 400 MR dispenser.
- Product is ready to be applied.

### 1. USE AT LOW TEMPERATURES

**Belzona® 5711** can be used down to 5 °C (41 °F), however, if desired to ease and speed up application, the cartridge can be warmed prior to use. Do not exceed 40 °C (104 °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	11 min	10 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

380 cm<sup>3</sup> (23 cu.in) per 600 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	80 minutes	100 minutes
10 °C/50 °F		
20 °C/68 °F	45 minutes	65 minutes
30 °C/86 °F		
40 °C/104 °F		

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

When overcoating with a further layer of **Belzona® 5711** or **Belzona® 5721**, regardless of temperature or humidity, the maximum overcoat time is 24 hours. After this time, the surface 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.

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#### HEALTH & SAFETY INFORMATION

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

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