

# 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 cm<sup>3</sup> (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.

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### HEALTH & SAFETY INFORMATION

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

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