PRODUCT SPECIFICATION SHEET
BELZONA 5711
FN10232

BELZONA®
Repair • Protect • Improve

GENERAL INFORMATION

Product Description:
A high performance, two component, solvent free system for the repair of erosion and impact damage on the leading edge of wind turbine blades. For use in repair situations or Original Equipment Manufacture (OEM). **Belzona 5711** is optimised for ease of application and rapid cure. **Belzona 5711** is designed to be used in combination with **Belzona 5721** to provide long lasting protection against rain erosion and impact damage.

APPLICATION INFORMATION

Application Methods
Applicator
Former

Application Temperature
Application should occur in the following ambient temperature range: 5 °C/41 °F to 40 °C/104 °F.

Volume Capacity
380 cm^3 (23 cu.in)/600 g cartridge.

Cure Time
The cure time is dependent on ambient conditions. At 20 °C (68 °F), the product will be sandable/hard dry after 65 minutes. Allow to cure for the times shown in the Belzona IFU before subjecting it to the conditions indicated.

Base Component

Appearance	Thixotropic paste
Colour	Dark Grey
Density	1.73 - 1.75 g/cm^3

Solidifier Component

Appearance	Thixotropic paste
Colour	White
Density	1.23 - 1.25 g/cm^3

Mixed Properties

Appearance:	Thixotropic paste
Colour:	Grey
Density	1.57 g/cm^3
Slump resistance:	>6mm/0.25 in
VOC content (ASTM D2369 / EPA ref. 24):	0.00% / 0.00 g/L (Undetected)

Mix Ratio
Mixing Ratio by Volume (Base : Solidifier) 2 : 1 Cartridge supplied

Overcoat Window
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.

Working Life
The working life will vary depending on ambient conditions. At 20 °C/68 °F and 50% relative humidity, the usable life of mixed material will typically be 12 minutes. Consult the Belzona IFU for specific details.

The above application information serves as introductory guide only.
For full application details including the recommended application procedure/technique, refer to the Belzona IFU.

PRODUCT SPECIFICATION SHEET
BELZONA 5711
FN10232

ABRASION

Taber
The Taber abrasion resistance determined in accordance with ASTM D4060 with 1 kg load is typically:

CS17 Wheels (Dry)

15 mm^3 loss per 1,000 cycles	24 hour cure at 20 °C/68 °F
11 mm^3 loss per 1,000 cycles	7 Day cure at 20 °C/68 °F

ADHESION

Pull off Adhesion
The PosiTest Dolly Pull Off strength on GRP composite, as determined in accordance with ASTM D4541 and ISO 4624, will typically be:

8.16 MPa / 1,183 psi*	7 Day cure at 20 °C/68 °F

**Cohesive failure of GRP composite*

The PosiTest Dolly Pull Off strength on 10 mm thick grit blasted mild steel, as determined in accordance with ASTM D4541 and ISO 4624, will typically be:

31.97 MPa / 4,636 psi (3mm thick application)*	7 Day cure at 20 °C/68 °F

Cohesive failure of **Belzona 5711*

Tensile Shear Adhesion
The tensile shear adhesion on grit blasted mild steel, as determined in accordance with ASTM D1002, will typically be:

21.64 MPa / 3,138 psi	24 hour cure at 20 °C/68 °F
23.33 MPa / 3,383 psi	7 Day cure at 20 °C/68 °F

Cleavage Adhesion
The cleavage adhesion on grit blasted mild steel, as determined in accordance with ASTM D1062, will typically be:

235 N/mm / 1,341 pli	24 hour cure at 20 °C/68 °F
199 N/mm / 1,136 pli	7 Day cure at 20 °C/68 °F

COMPRESSIVE PROPERTIES

When determined in accordance with ASTM D695, typical values will be:

Compressive Strength

53.07 MPa / 7,697 psi	24 hour cure at 20 °C/68 °F
66.40 MPa / 9,630 psi	7 Day cure at 20 °C/68 °F

Proportional Limit

41.69 MPa / 6,046 psi	24 hour cure at 20 °C/68 °F
50.14 MPa / 7,272 psi	7 Day cure at 20 °C/68 °F

Compressive Modulus

1,269 MPa / 1.84 x 10^5 psi	24 hour cure at 20 °C/68 °F
1,340 MPa / 1.94 x 10^5 psi	7 Day cure at 20 °C/68 °F

FLEXURAL PROPERTIES

When determined in accordance with ASTM D790, typical values will be:

Flexural Strength

42.13 MPa / 6,110 psi	24 hour cure at 20 °C/68 °F
57.38 MPa / 8,322 psi	7 Day cure at 20 °C/68 °F

Flexural Modulus

4,293 MPa / 6.23 x 10^5 psi	24 hour cure at 20 °C/68 °F
4,302 MPa / 6.24 x 10^5 psi	7 Day cure at 20 °C/68 °F

HARDNESS

Shore D
The Shore D hardness of the material tested to ASTM D2240 is typically:

82	24 hour cure at 20 °C/68 °F
82	7 Day cure at 20 °C/68 °F

Barcol (Model 935)
The Barcol hardness of the material tested to ASTM D2583 is typically:

83	24 hour cure at 20 °C/68 °F
83	7 Day cure at 20 °C/68 °F

HEAT RESISTANCE

Heat Distortion Temperature (HDT)
When determined in accordance with ASTM D648, the HDT will typically be:

46 °C / 115 °F	24 hour cure 20 °C/68 °F
54 °C / 129 °F	7 Day cure 20 °C/68 °F

IMPACT STRENGTH

Izod Impact
When tested in accordance with ASTM D256, the reverse notched impact strength will typically be:

2.54 kJ/m^2	24 hour cure at 20 °C/68 °F
3.05 kJ/m^2	7 Day cure at 20 °C/68 °F

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).

PRODUCT SPECIFICATION SHEET
BELZONA 5711
FN10232

WARRANTY

This product will meet the performance claims stated herein when material is stored and used as instructed in the Belzona Information For Use leaflet. Belzona ensures that all its products are carefully manufactured to ensure the highest quality possible and are tested strictly in accordance with universally recognized standards (ASTM, ANSI, BS, DIN, ISO, etc.). Since Belzona has no control over the use of the product described herein, no warranty for any application can be given.

AVAILABILITY AND COST

Belzona 5711 is available from a network of Belzona Distributors throughout the world for prompt delivery to the application site. For information, consult the Belzona Distributor in your area.

MANUFACTURER / SUPPLIER

Belzona Limited,
Claro Road, Harrogate,
HG1 4DS, UK

Belzona Inc.
14300 N.W. 60th Ave.
Miami Lakes, FL, 33014, USA

HEALTH AND SAFETY

Prior to using this material, please consult the relevant Safety Data Sheets.

TECHNICAL SERVICE

Complete technical assistance is available and includes fully trained Technical Consultants, technical service personnel and fully staffed research, development, and quality control laboratories.

Belzona products are manufactured under an ISO 9001 Registered Quality Management System