BELZONA 3111 Product Specification Sheet

1. PRODUCT NAME

Belzona® 3111 (Flexible Membrane)
For preventive maintenance and repairs on almost all types of roofs.

2. MANUFACTURER

Belzona Inc.,
2000 N.W. 88th Court
Miami, Florida 33172

Belzona Polymerics Ltd.,
Claro Road, Harrogate,
HG1 4DS, England

3. PRODUCT DESCRIPTION

A single component formulated acrylic ester copolymer emulsion. It is used in conjunction with **Belzona® 3911** (PSC Surface Conditioner), **Belzona® 3912** (Water Based PSC Surface Conditioner) or **Belzona® 3921** (GSC Surface Conditioner) and **Belzona® 9311** (Reinforcing Sheet).

This liquid base binds to the **Belzona® 9311** to form a tough, flexible and elastic polymeric film which can tightly follow all roof contours. The system provides long term weatherproofing and water-proofing of almost all types of roof substrate and offers outstanding protection against infrared and ultra-violet radiation, and natural and industrial pollutants. It is impermeable to liquid water, but permeable to water vapor, thus allowing a moist roof to breathe. The system is ideally suited for applications to:
Gutters
Parapet Walls
Glazing Bars
Joints
Seams
Flashings
Ponded Areas
Flat Roof Areas
Complex Roofs and Domes

4. TECHNICAL DATA

A one component product.

Appearance	Thixotropic liquid
Color	Available in Gray, White and Sand
Odor	Very slight ammoniacal
Density	1.235 - 1.275 g/cm³
Gel strength at 77°F (25°C)	80 - 110 g/cm
Freezing point	32°F (0°C)
Weight per gallon	10.57 lbs/gal
Volatile by volume	38.0%

• Shelf Life:
When stored in unopened containers between 41°F (5°C) and 86°F (30°C), this material is expected to have a shelf life of at least 5 years.

• Usable Life:
At temperatures between 41°F (5°C) and 86°F (30°C) this material will have an indefinite usable life.

• Drying Time:
Applied under good drying conditions, will be water resistant within 30 minutes of application. Under cool or humid conditions, this time will be extended. The product should not be applied when the relative humidity is above 90% or the surface temperature is below 41°F (5°C).

• Coverage Rates:
The first layer is applied to a dry film thickness of 10 mil (250 micron). This dry film thickness measurement includes the synthetic reinforcing sheet. The second layer should be applied to a dry film thickness of 6 mil (150 micron), giving an overall film thickness of approximately 16 mil (400 micron). As a practical guide, the coverage rates listed in the chart below should be obtained.

5. PHYSICAL / MECHANICAL PROPERTIES

• Elongation at Break:
The elongation of the reinforced system after 7 days cure at 68°F (20°C) when tested against BS 2782 or similar test method is typically,
20% lengthwise,
100% crosswise.

• Tear Strength:
The tear strength of the reinforced system after 7 days cure at 68°F (20°C) is typically,
188 pli (33.0 N/mm) lengthwise,
188 pli (33.0 N/mm) crosswise

• Tensile Strength:
The tensile strength of the reinforced system after 7 days at 68°F (20°C) when tested against BS 2782 or similar test method is typically,
1450 psi (10.0 N per sq.mm) lengthwise,
580 psi (4.0 N per sq.mm) crosswise

• Vapor Resistance:
The vapor resistance of the reinforced system after 7 days cure at 68°F (20°C) is typically 33 MN/sg

• Water Vapor Permeability:
When tested in accordance with ASTM E96 the fully reinforced system after 7 days cure at 68°F (20°C) will have the following typical values:
Water vapor permeability 30g/m²/24hrs
Permeance 2.16 US Perms

COVERAGE RATES OF BELZONA® 3111 (per liter)

Substrate	First Layer		Second Layer	
Concrete/Brick	14.0 sq ft.	1.3 sq.m.	33.0 sq.ft.	3.0 sq.m.
Plaster/Wood	19.0 sq ft.	1.7 sq.m.	33.0 sq.ft.	3.0 sq.m.
Asphalt	21.0 sq.ft.	1.9 sq.m.	33.0 sq.ft.	3.0 sq.m.
Smooth Felt/Bitumen	21.0 sq.ft.	1.9 sq.m.	33.0 sq.ft.	3.0 sq.m.
Mineral Felt/Small Chippings	14.0 sq.ft.	1.3 sq.m.	33.0 sq.ft.	3.0 sq.m.
Galvanized Steel	21.0 sq.ft.	1.9 sq.m.	33.0 sq.ft.	3.0 sq.m.
Metals	21.0 sq.ft.	1.9 sq.m.	33.0 sq.ft.	3.0 sq.m.
Recoating Belzona® 3111	21.0 sq.ft.	1.9 sq.m.	33.0 sq.ft.	3.0 sq.m.

6. SURFACE PREPARATION AND APPLICATION PROCEDURES

To ensure good adhesion, the substrate must be treated with **Belzona® 3911**, **Belzona® 3912** or **Belzona® 3921** as appropriate prior to the application of the **Belzona® 3111.** For proper technique, refer to the Belzona® Instructions For Use Leaflet which is enclosed with each packaged product.

7. AVAILABILITY AND COST

Belzona® 3111 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.

8. WARRANTY

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

9. TECHNICAL SERVICES

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

10. HEALTH AND SAFETY

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

11. APPROVALS/ ACCEPTANCES

FORD
GENERAL MOTORS

BBA BRITISH BOARD OF AGRÉMENT
European Technical Approval ETA-05/0075

energy CHANGE FOR THE BETTER WITH ENERGY STAR

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BELZONA®
Repair • Protect • Improve

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