World leaders in the conservation of man-made resources and the environment

PRODUCT SPECIFICATION SHEET

BELZONA® 3111

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 4AY, 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 1.25 - 1.28 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 $68^{\circ}F$ (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:

The water vapor permeability of the reinforced system after 7 days cure at 68°F (20°C) is typically 6.3 grams per square meter per 24 hours at 77°F(25°C).

COVERAGE RATES OF BELZONA® 3111 (per liter)

Necoating beizona 3111 21.0 Sq.1t. 33.0 Sq.1t.	Substrate Concrete/Brick Plaster/Wood Asphalt Smooth Felt/Bitumen Mineral Felt/Small Chippings Galvanized Steel Metals Recoating Belzona® 3111	First Layer 14.0 sq ft. 19.0 sq ft. 21.0 sq.ft. 21.0 sq.ft. 14.0 sq.ft. 21.0 sq.ft. 21.0 sq.ft. 21.0 sq.ft. 21.0 sq.ft.	Second Layer 33.0 sq.ft. 33.0 sq.ft. 33.0 sq.ft. 33.0 sq.ft. 33.0 sq.ft. 33.0 sq.ft. 33.0 sq.ft. 33.0 sq.ft.
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6. SURFACE PREPARATION AND APPLICATION PROCEDURES

To ensure good adhesion, the substrate must be treated with Belzona® 3911, Belzona® 3912 or Belzona® 3921 as appopriate 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

BBA FORD GENERAL MOTORS

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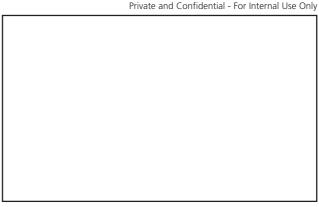


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