Belzona 3111

(FLEXIBLE MEMBRANE)

BELZONA®
Repair • Protect • Improve

INSTRUCTIONS FOR USE

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

APPLY ONLY TO STRUCTURALLY SOUND SURFACES

a) Remove mineral chippings of ¼ in. (6mm) or more and sweep the area clean before proceeding to (b).

b) All surfaces should be made clean, dry and firm. Cut out blisters and bulges in asphalt. Treat substrates where moss, lichens and vegetation have been removed with a fungicidal wash (e.g. Nuodex or similar) applied to the manufacturers' instructions to kill off residual spores.

c) Degrease galvanized steel and glass with **Belzona® 9111** (Cleaner/Degreaser) or any other effective cleaner which does not leave a residue, e.g. methyl ethyl ketone (MEK). Wash all non-porous surfaces with a mild detergent solution and allow to dry before commencing application.

d(i) **ROOFING FELT, ASPHALT, BRICK, CONCRETE and OTHER POROUS OR BITUMINOUS SURFACES.**
Condition with **Belzona® 3911** (PSC Surface Conditioner). Shake the unit and then brush the **Belzona® 3911** well into the surface, not exceeding the coverage rates shown. Allow to become touch dry (30 minutes - 4 hours depending on weather conditions) before applying **Belzona® 3111.** Under no circumstances should the **Belzona® 3911** be left longer than 2 days* before overcoating with **Belzona® 3111.**

d(ii) **GLASS, SLATE, LEAD, COPPER, ALUMINIUM and other NON-POROUS SURFACE EXCEPT PLEXIGLAS AND OTHER PLASTICS.**
Condition with **Belzona® 3921** (GSC Surface Conditioner) which is supplied in 2 parts, Base and Solidifier. Stir the contents of the Base can until smooth and then add the entire contents of the Solidifier can, stirring continuously to achieve an even color and smooth consistency. Use mixed material within 48 hours, as after this time it will begin to solidify. For mixing small quantities, use a ratio of 7 parts of Base to 2 parts of Solidifier by volume. Brush the **Belzona® 3921** well into the surface, not exceeding the recommended coverage rate. Leave for at least 4 hours but no longer than 2 days* before overcoating with **Belzona® 3111.**

d(iii) **Refurbishment of existing Belzona® 3111.**
Wash down with water to remove all surface dirt before conditioning with **Belzona® 3921,** as before, and applying **Belzona® 3111.**

d(iv) Clean brushes immediately after use with a suitable solvent such as **Belzona® 9121**, MEK, acetone or cellulose thinners.

* If these times are exceeded, a further application of the relevant Surface Conditioner should be made before applying the **Belzona® 3111**.

2. APPLYING BELZONA® 3111

DO NOT APPLY WHEN:
i) There is a risk of rain, snow, fog or frost.
ii) Surface temperature is 41°F (5°C) and falling, or relative humidity rises above 80%.
iii) A combination of high relative humidity and low temperature occurs.
iv) Any of the above conditions is likely to occur within 45 minutes.

A fully reinforced two-coat system must be applied at problem areas such as joints and seams, gutters, flashings and glazing bars, areas subject to ponded water or pedestrian traffic and on all unstable roof surfaces such as mineral felt, asphalt or bitumen based materials. On inclined or stable roof surfaces, e.g. concrete, which are not subject to ponding or pedestrian traffic, single or two coat unreinforced applications are acceptable.

a) Lay out **Belzona® 9311** (Reinforcing Sheet) over the conditioned area to be treated. Apply **Belzona® 3111** with a soft bristled, good quality brush over the **Belzona® 9311.** Smooth over with the brush to ensure complete wetting, and to leave a finish free from stretches or creases in the **Belzona® 9311.** Do not exceed the quoted coverage rate. Allow to dry thoroughly (2 - 4 hours).

In areas subject to standing water, allow to dry for a minimum 24 hours. In no instance must more than 5 days elapse before application of the second coat. Should this occur, treat the surface with **Belzona® 3921** prior to applying the second coat of **Belzona® 3111.** Where **Belzona® 3111** white is being used, two coats will be required to obliterate the color of the **Belzona® 3921.**

b) Apply the second layer of **Belzona® 3111** to give a smooth finish, free from pinholes, not exceeding the quoted coverage rate.

c) Clean brushes immediately after use with cold water.

d) If, during the 24 hours following application of the second layer, rainfall causes standing water, sweep this clear to minimize any blistering between the layers. Cut out any blisters, and treat affected areas with a two coat reinforced system, as detailed above.

NOTES:

1. BRIDGING JOINTS AND CRACKS

Use plastic backed adhesive tape to bridge joints in gutters, expansion cracks on flat roofs or any other surface irregularities, to provide a smooth surface.

Apply the tape to the conditioned surface and make sure that it is pressed down firmly.

2. DRYING TIMES

Under good drying conditions **Belzona® 3111** will be water resistant 30 minutes after application, but under cold or humid conditions, this time will be extended.

3. THINNING

Thinning may be necessary in warm, dry or windy conditions. Add clean water to **Belzona® 3111**, up to a maximum of 5% by volume, while continuously stirring. **Belzona® 3911** and **Belzona® 3921** may be thinned by adding 10% by volume of **Belzona® 9121.** Standard coverage rates apply, regardless of whether or not thinning takes place.

An alternative method of application under quick drying conditions is to wet the rolls of **Belzona® 9311** in a bucket of clean water prior to laying out on the roof section.

A film of water can be poured onto the surface of the **Belzona® 3111** to prevent skinning during hot conditions. This also has the effect of thinning as the brush is passed through this film.

4. UNEVEN FINISH

If an uneven finish results from overbrushing, correct this by lightly brushing over the partially dried area with a clean, wet, soft bristled brush.

5. SPRAY APPLICATION

On suitable surfaces Belzona 3111 can be applied by airless spray.

Tip pressure (minimum)	**2000 psi (142 bar)**
Tip size (minimum)	**23 thou (0.57mm)**
Thinner	**Up to 5% Clean water**
Cleaning	**Water**
Note:	**Remove filters**

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3. COVERAGE RATES

Theoretical Coverage Rates
Belzona® 3911 - 110 sq.ft. (10.2 sq.m.)/liter at 1 mil d.f.t.
Belzona® 3921 - 67 sq.ft. (6.3 sq.m.)/kg at 1.3 mil d.f.t.
Belzona® 3111
1st Layer - 23 sq.ft. (2.1 sq.m.)/liter at 10 mils d.f.t.
Belzona® 3111
2nd Layer - 35 sq.ft. (3.2 sq.m.)/liter at 6.0 mils d.f.t.

These coverage rates can be achieved on smooth surfaces. In practice, many factors influence the exact figure achieved. Practical coverage rates are quoted below.

	Surface Conditioner		Belzona® 3111 (Reinforced System)	
	Belzona® 3911 Per Liter	Belzona® 3921 Per Kg	1st Layer Per Liter	2nd Layer Per Liter
New Asbestos Cement	100.0 sq.ft. 9.3 sq.m.		21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Old Asbestos Cement	50.0 sq.ft. 4.6 sq.m.		16.0 sq.ft. 1.5 sq.m.	33.0 sq.ft. 3.0 sq.m.
Plaster/Wood	75.0 sq.ft. 7.0 sq.m.		19.0 sq.ft. 1.7 sq.m.	33.0 sq.ft. 3.0 sq.m.
Concrete/Brick	45.0 sq.ft. 4.2 sq.m.		14.0 sq.ft. 1.3 sq.m.	33.0 sq.ft. 3.0 sq.m.
Breeze Block/ Tyrolean	25.0 sq.ft. 2.3 sq.m.		11.0 sq.ft. 1.0 sq.m.	22.0 sq.ft. 2.0 sq.m.
Asphalt	100.0 sq.ft. 9.3 sq.m.		21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Smooth Felt/ Bitumen	75.0 sq.ft. 7.0 sq.m.		21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Mineral Felt/ Small Chippings	45.0 sq.ft. 4.2 sq.m.		14.0 sq.ft. 1.3 sq.m.	33.0 sq.ft. 3.0 sq.m.
De-chipped Surfaces (1)	25.0 sq.ft. 2.3 sq.m.		14.0 sq.ft. 1.3 sq.m.	33.0 sq.ft. 3.0 sq.m.
Glazing Bars (Wood)		38.0 sq.ft. 3.5 sq.m.	14.0 sq.ft. 1.3 sq.m.	33.0 sq.ft. 3.0 sq.m.
Glazing Bars (Metal)		60.0 sq.ft. 5.6 sq.m.	21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Slate		38.0 sq.ft. 3.5 sq.m.	12.0 sq.ft. 1.1 sq.m.	24.0 sq.ft. 2.2 sq.m.
Galvanized Steel		54.0 sq.ft. 5.0 sq.m.	21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Non-Ferrous Metals		60.0 sq.ft. 5.6 sq.m.	21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Iron or Steel		45.0 sq.ft. 4.2 sq.m.	21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.
Recoating Belzona® 3111		60.0 sq.ft. 5.6 sq.m.	21.0 sq.ft. 1.9 sq.m.	33.0 sq.ft. 3.0 sq.m.

(1) Large chippings, if not removed, will substantially reduce the coverage rates given above.

HEALTH & SAFETY INFORMATION

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

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