

PRODUCT SPECIFICATION SHEET

BELZONA 3211

FN10164



GENERAL INFORMATION

Product Description:

A formulated water based styrene acrylic emulsion polymer used in conjunction with a polymer bonded glass reinforcing sheet (**Belzona 9321**) to create seamless water and weatherproofing of all types of insulation and cladding materials. The system is flexible, water and weather resistant but also micro-porous allowing moisture from within the substrate to evaporate. The material also offers fire resistance and conforms to the requirements for a Class 0 Surface for The UK Building Regulations 1991 and class A in accordance with ASTM E84.

Application Areas:

When applied as detailed in the Belzona Instructions for Use (IFU), the system is ideally suited for application to the following:

Protection of insulation on:

- | | | |
|------------------------------|----------------------------|---------------------|
| - Pipes | - Air conditioning ducting | - Valve boxes |
| - Flange covers | - Boilers | - Pressure vessels |
| - Bulk storage tanks | - Heat exchangers | - Tank base sealing |
| - Roof repair and protection | | |

APPLICATION INFORMATION

Drying Time

Applied under good drying conditions, will be water resistant within 60 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

Apply the first coat of **Belzona 3211** incorporating **Belzona 9321** sheet to a dry film thickness of 10 mil (250 microns). Apply the second coat of **Belzona 3211** to a dry film thickness of 6.0 mil (150 microns). Refer to the IFU for a guide to practical coverage rates.

Properties

Appearance	Thixotropic liquid
Color	White
Odor	Styrene acrylic
Viscosity	1.7 - 3.7 poise at 77°F (25°C)
Density	1.46 - 1.51 g/cm ³
Solids:	
by weight	72 - 76%
by volume	57 - 62%
Solvent	Water
Flash point	None

The above application information serves as introductory guide only. For full application details including the recommended application procedure/technique, refer to the Belzona IFU which is enclosed with each packaged product.

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ELONGATION PROPERTIES

The elongation of the unreinforced system after 7 days cure at 68°F (20°C) when tested against BS 2782 or similar test method is typically 90%.

FIRE RESISTANCE

- The fire propagation index when tested in accordance with BS 476 Part 6 is 2.8.
- The material when tested in accordance with BS 476 Part 7 for surface spread of flame shall be Class 1 surface spread of flame.
- When tested in accordance with ASTM E84 the system meets class A with a flame spread index less than 25 and smoke developed index less than 100.

OIL RESISTANCE

The system is unaffected by immersion for 24 hours in light fuel oil at 122°F (50°C) and lubricating oil at 122°F (50°C).

TENSILE PROPERTIES

Tensile Strength

The tensile strength of the unreinforced system after 7 days at 68°F (20°C) when tested against BS 2782 or similar test method is typically:

370 psi (2.5 N/mm²)

VAPOR RESISTANCE

The vapor resistance of the reinforced system after 7 days cure at 68°F (20°C) is typically 10.0 MN/sg.

WATER VAPOR PERMEABILITY

When tested in accordance with ASTM E-96, the water vapor permeability after 7 days cure at 68°F (20°C) is typically:

Unreinforced	2.748 Perms
Reinforced	2.199 Perms

SHELF LIFE

When stored in unopened containers between 41°F (5°C) and 86°F (30°C), this material is expected to have a minimum 5 years shelf life. The product is able to withstand 5 freeze/thaw cycles between 15°F (-9°C) and 70°F (21°C) with no detrimental effect, thus, accidental freezing should not alter product performance.

APPROVALS/ACCEPTANCES

The material has received recognition from organizations worldwide including:

GENERAL MOTORS

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WARRANTY

Belzona guarantees 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 further guarantees that all its products are carefully manufactured to ensure the highest quality possible and tested strictly in accordance with universally recognised 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 3211 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.

HEALTH AND SAFETY

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

MANUFACTURER

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

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

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.

The technical data contained herein is based on the results of long term tests carried out in our laboratories and to the best of our knowledge is true and accurate on the date of publication. It is however subject to change without prior notice and the user should contact Belzona to verify the technical data is correct before specifying or ordering. No guarantee of accuracy is given or implied. We assume no responsibility for rates of coverage, performance or injury resulting from use. Liability, if any, is limited to the replacement of products. No other warranty or guarantee of any kind is made by Belzona, express or implied, whether statutory, by operation of law or otherwise, including merchantability or fitness for a particular purpose.

Nothing in the foregoing statement shall exclude or limit any liability of Belzona to the extent such liability cannot by law be excluded or limited.

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ISO 9001:2008
Q 09335
ISO 14001:2004
EMS 509612

Manufactured under an ISO 9000
Registered Quality Management System

