

# Belzona 3411

## ENCAPSULATING MEMBRANE

### Flexible, Peelable Coating System for the Protection of Flanges and Pipework

Flanges present a unique corrosion protection challenge because solutions must not only prevent corrosion, but also allow future access to fastenings in the event that maintenance or disassembly is required. In addition, the complex geometry of a flanged connection means that problems such as crevice corrosion in the void between the two flange faces and galvanic corrosion where dissimilar metals are used are common and can be severe.

Belzona 3411 is a solvent-free hybrid polymer coating that can be used to completely encapsulate a flanged joint to protect it from the elements, exclude moisture and prevent corrosion. This liquid applied material does not require heat or specialist tools for its application, and reacts to form a tough elastic protective barrier.

When used with Belzona 8411, a corrosion-inhibiting base layer designed to work in combination with Belzona 3411, the system provides outstanding corrosion protection, and yet this peelable coating can be easily cut away with a knife to allow access to fastenings. Furthermore, after maintenance work has been completed the protective barrier can be readily reinstated with application of a further layer of Belzona 3411 over the cut joint.



### Application Areas for Belzona 3411:

- Belzona 3411 has been designed specifically for the protection of flanges, fastenings and associated pipework
- Belzona 3411 is a liquid applied two-pack system and can therefore be used to protect any shape, size or configuration of flange

### Key Benefits of Belzona 3411:



**Excellent corrosion resistance**  
Achieved via the combination system of Belzona 8411 (a corrosion-inhibiting base layer) and the tough, durable, encapsulating outer layer of Belzona 3411.



**Peelable and resealable system**  
Belzona 3411 can be peeled and resealed, allowing easy access to flange fastenings in the event that disassembly is required.



**Simple and quick to use**  
Belzona 3411 is easy and quick to apply using simple tools, and uses a fast-cure polymer for minimum downtime.

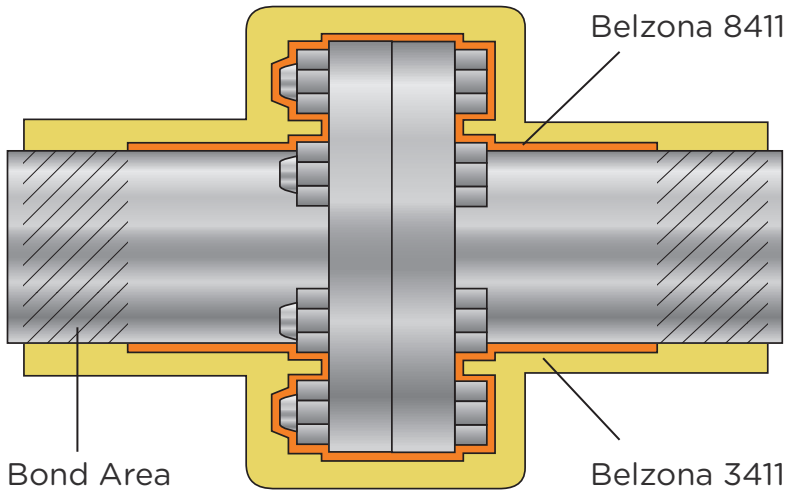


**Excellent adhesion onto manually prepared surfaces**  
Belzona 3411 exhibits excellent adhesion to manually prepared surfaces, for example to ISO 8501-1 St 2 or SSPC SP-2.



**Excellent UV and environmental weathering**  
Belzona 3411 offers excellent UV resistance and withstands the effects of adverse weather conditions.

# Belzona 3411 ENCAPSULATING MEMBRANE



The Belzona flange protection system is a combination of two products.

Belzona 8411 forms the initial layer in direct contact with the steel substrate. This single-component product performs two functions: 1) offers corrosion-protection through the use of specially selected corrosion inhibitors, and 2) it provides a 'release layer' to facilitate peeling back of the topcoat when access to fastenings is required.

Belzona 3411 forms the tough, elastic topcoat that completely encapsulates the flange to exclude moisture and eliminate corrosion. This two coat, two-colour system extends beyond the Belzona 8411 release layer in order to provide a bond and seal the extremities of the repair directly onto the metal substrate or existing pipe coating.

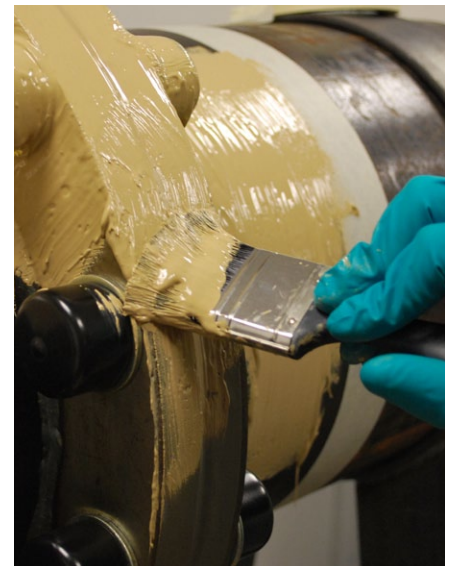
## Test Data:

|                                  |   |
|----------------------------------|---|
| Corrosion resistance (ASTM B117) | No corrosion after 1000 hours exposure to a salt-fog atmosphere at 35°C (*test on-going)  |
| 90° Peel adhesion (ASTM D429):   | Manually prepared (ISO 8501-1 St 2) carbon steel:<br>>6.6pli / 1.16MPa<br>Manually prepared solvent-free epoxy paint: >6.4pli / 1.12MPa<br>Manually prepared solvent-borne polyurethane paint:<br>>6.4pli / 1.12MPa |
| Elongation (ASTM D412)           | Unreinforced = 66%<br>Reinforced = 24%  |
| Tensile strength (ASTM D412)     | Unreinforced = 410psi / 2.8 MPa<br>Reinforced = 670psi / 4.6 MPa  |
| Tear strength (ASTM D624)        | Unreinforced = 21pli / 3.7N/mm<br>Reinforced = 100pli / 17.9N/mm  |

## Application Data:

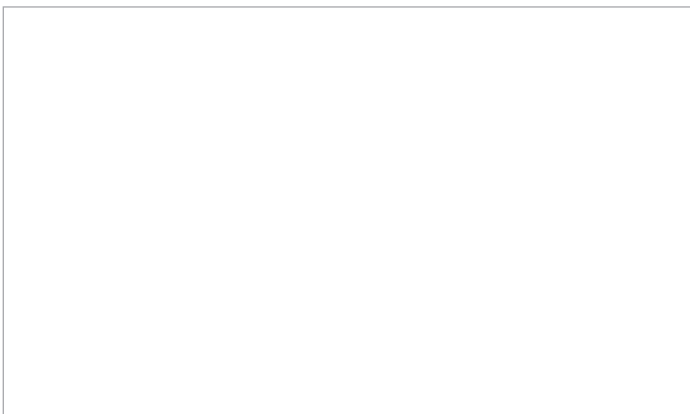
|                   |   |
|-------------------|---|
| Available colours | Light grey, beige   |
| Unit sizes        | Belzona 3411: 645g; Belzona 8411: 0.5 litres                                |
| Coverage rates    | Belzona 3411: 0.4m <sup>2</sup> /kg; Belzona 8411: 9.6m <sup>2</sup> /litre |
| Usable life       | Belzona 3411: 30 minutes; Belzona 8411: N/A                                 |
| Overcoat time     | Belzona 3411: 1-4 hours; Belzona 8411: 1 hour                               |

\* Please refer to Belzona 3411 Instructions for Use for more details.



Belzona 3411 can be easily applied by brush and it does not require heat or specialist tools for its application.

For more information, please contact your local Belzona representative:



## QUALITY PRODUCTS - TECHNICAL SUPPORT

The Belzona product range is manufactured through stringent quality and environmental control guidelines complying with the internationally recognised requirements of ISO 9001:2008 and ISO 14001:2004.

Belzona has a global distribution network of over 140 Distributors operating in 120 countries. Local support is provided by a trained Technical Consultant who will diagnose the problem, recommend the solution and provide 24 hour on-site application supervision and advice.



Belzona products are manufactured under an ISO 9000 Registered Quality Management System