

Chemical Resistant Repair Composite for Metal and Concrete Substrates



4301



Belzona 4301 (Magma CR1 Hi-Build) is a high performance, paste-grade system with outstanding chemical resistance to a broad range of chemicals. This material is designed for rebuilding or protecting metal and concrete surfaces against chemical attack. In addition, it is ideally suited to repairing damaged chemical resistant linings.

This two-component repair composite can be used to form nozzle inserts to provide further chemical protection for vessel nozzles. Furthermore, Belzona 4301 works effectively when used to profile rough surfaces prior to the application of Belzona 4311 (Magma CR1).

This solvent-free material is easy to mix and apply without the need for specialist tools.

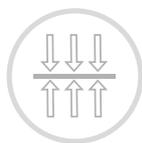
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|----------------|--------------------------------|--|-----------------------------------|-------------------------------|
| TECHNICAL DATA | Mixing ratio (base:solidifier) | 3:1 by volume | 3.22:1 by weight | |
| | Working life | 25 minutes at 25°C (77°F) | | |
| | Shelf life | 5 years | | |
| | Adhesion (tensile shear) | Steel: 20.0 MPa (2900 psi) | Copper: 17.6 MPa (2550 psi) | Aluminum: 16.9 MPa (2450 psi) |
| | Compressive strength | 97.9 MPa (14,200 psi) | | |
| | Volume capacity | 720 cm ³ (44in ³) /1 kg | | |
| | Heat resistance | 200°C (392°F) dry | 60°C (140°F) wet | |
| | Heat distortion temperature | 54°C (129°F) at 25°C (77°F) cure | 70°C (158°F) at 50°C (122°F) cure | |

| | | | | | |
|------------|--------------------------|-------------|-------------|-------------|-------------|
| CURE TIMES | Temperature | 15°C (59°F) | 20°C (68°F) | 25°C (77°F) | 30°C (86°F) |
| | Movement | 16 hours | 12 hours | 8 hours | 6 hours |
| | Light loading | 48 hours | 36 hours | 24 hours | 20 hours |
| | Full chemical resistance | 14 days | 7 days | 6 days | 5 days |

*Please consult the Product Specification Sheet (PSS) and Instructions for Use (IFU) for the latest technical data.



CHEMICAL
RESISTANT



HIGH
COMPRESSIVE
STRENGTH



SOLVENT
FREE



EXCELLENT
ADHESION



EASY TO
APPLY

Key benefits:

- **Excellent chemical resistance**

With excellent chemical resistance, Belzona 4301 provides a long-term protective barrier against chemical attack.

- **Excellent adhesion**

This material demonstrates excellent adhesion to a range of substrates, including steel and concrete.

- **100% solids**

Belzona 4301 is a 100% solids material as it is solvent-free, meaning it will not shrink, expand or distort once applied.

- **Easy to apply**

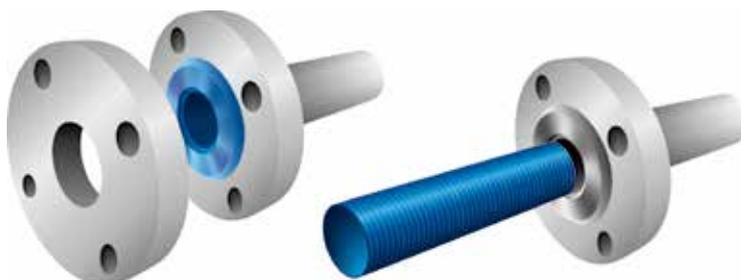
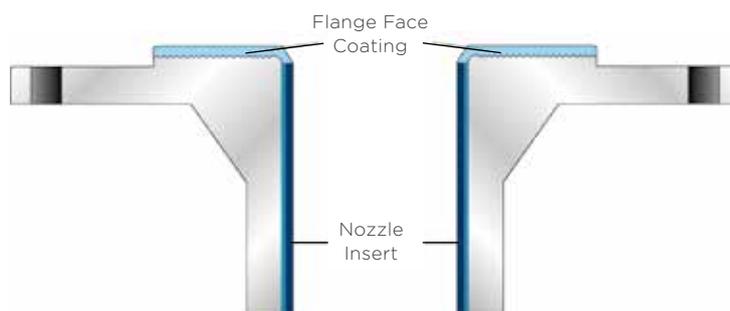
This repair composite is cold-applied and cold-curing, without the need for any specialist tools.



Belzona 4301 used to bond plates to pipes suffering from chemical attack

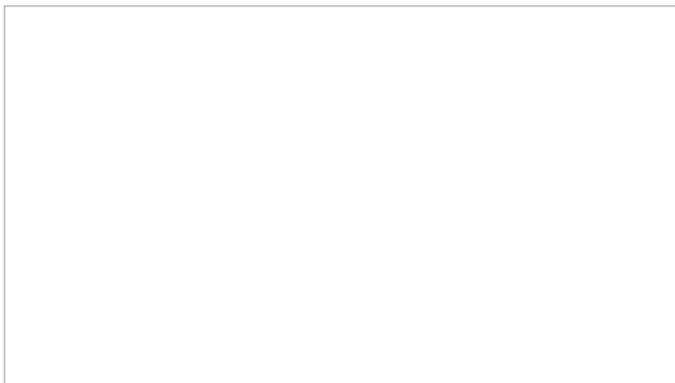
Application areas:

- Acid-retaining wall
- Chemical channels
- Chemical drains
- Chemical transfer and holding areas
- Flanges
- Glass lined reactors
- Nozzle inserts
- Pump bases and plinths
- Tank pads
- Tanks
- Weld seams



Belzona 4301 is suitable for flange face restoration and the creation of nozzle inserts

For more information, please contact your local Belzona representative:



QUALITY PRODUCTS - TECHNICAL SUPPORT

Belzona products are manufactured under an ISO 9001 Registered Quality Management System.

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.