

Chemical Resistant Repair Composite for Metal and Concrete Substrates

BELZONA®
4301



Belzona 4301 (Magma CR1 Hi-Build) is a high performance, paste-grade system with outstanding chemical resistance to a broad range of chemicals, especially concentrated inorganic acids and alkalis.

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 a suitable Belzona coating.

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

TECHNICAL DATA	Mixing ratio (base:solidifier)	2:1 by volume	2:1 by weight	
	Working life	40 minutes at 20°C (68°F)		
	Shelf life	3 years		
	Adhesion (pull-off) *cohesive failure of substrate	Mild Steel: 35.1 MPa (5,090 psi)	Concrete (dry) with Belzona 4911: 8.1 MPa (1,170 psi)*	Concrete (damp) with Belzona 4911: 7.4 MPa (1,080 psi)*
	Tensile shear adhesion	19.4 MPa (2,820 psi) on blasted mild steel.		
	Compressive strength	81 MPa (11,750 psi)		
	Volume capacity	667 cm³ (40.7in³) /1 kg		
	Heat resistance	210°C (410°F) dry	60°C (140°F) wet	
	Heat distortion temperature	48°C (118°F) at 20°C (68°F) cure	78°C (172°F) at 100°C (212°F) post cure	

CURE TIMES	Temperature	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
	Dimensionally stable	18 hours	6 hours	5 hours	3 hours
	Machining	24 hours	12 hours	10 hours	6 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**



**READILY
OVERCOATABLE
FOR CHEMICAL
SERVICE**



**SOLVENT
FREE**



**EXCELLENT
ADHESION**



**EASY TO
APPLY**

Key benefits:

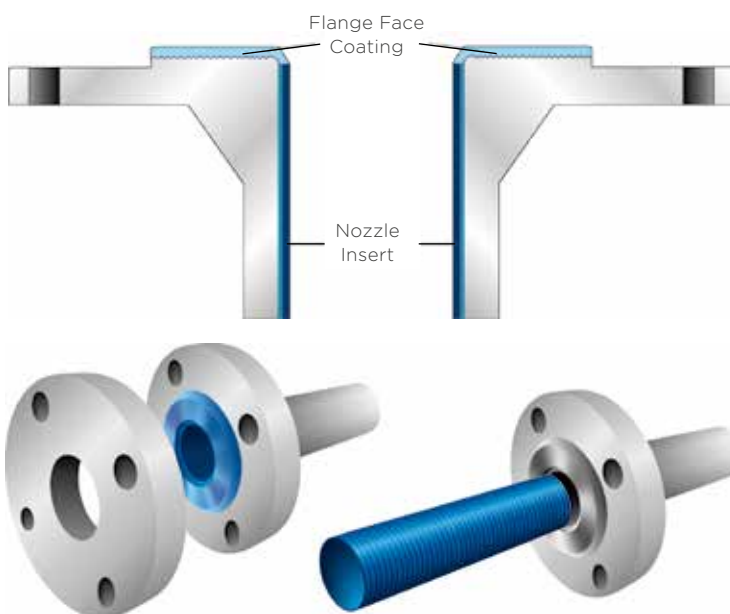
- **Excellent chemical resistance**
With excellent chemical resistance, Belzona 4301 provides a long-term protective barrier against chemical attack.
- **Excellent adhesion**
This material demonstrates excellent adhesion to a range of substrates, including steel and concrete.
- **Solvent-free**
Belzona 4301 is solvent-free, meaning it will not shrink, expand or distort once applied.
- **Easy to apply**
This high build repair composite is cold-applied and cold-curing, without the need for any specialist tools.



For mixing small quantities of Belzona® 4301 use 2 parts Base to 1 part Solidifier by volume.

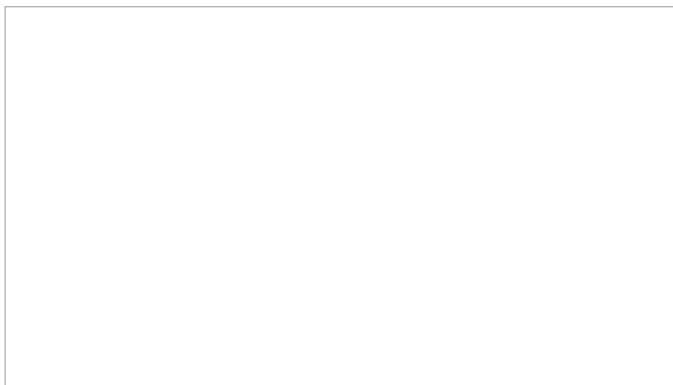
Application areas:

- Pit filling
- Plate bonding
- Damaged or worn flange faces
- Nozzle inserts
- Acid retaining walls
- Chemical channels
- Chemical drains
- Chemical transfer and holding areas
- Pump bases and plinths
- Weld seams
- Internal furniture attachment



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.