

# Erosion-Corrosion Resistant Ceramic Coating



**BELZONA®**  
**1321**



Belzona 1321 (Ceramic S-Metal) is a two-component, high-strength material for the protection of equipment against erosion-corrosion.

Designed to operate under continuous immersion, up to 60°C (140°F), this solvent-free system has outstanding chemical resistance and will bond to a wide range of substrates. Belzona 1321 can also be used as an injection material for the shimming and bonding of components.



TECHNICAL DATA	Mixing ratio (base:solidifier)	4 : 1 by volume	11 : 1 by weight
	Working Life	30 minutes at 25°C (77°F)	
	Shelf Life	5 years	
	Heat resistance	220°C (428°F) dry	60°C (140°F) wet
	Adhesion (Tensile Shear )	Mild steel: 18.68 MPa (2,710 psi)	Stainless steel: 21.92 MPa (3,180 psi)
	Compressive Strength	86.18 MPa (12,500 psi) at 20°C (68°F) cure	
	Volume Capacity	422 cm <sup>3</sup> (25.7 in <sup>3</sup> ) / 1 kg	
	Heat distortion temperature	48°C (118°F) at 20°C (68°F) cure	87°C (189°F) at 100°C (212°F) cure
	Abrasion resistance	H10 - 178 mm <sup>3</sup> wet	CS17 - 14 mm <sup>3</sup> dry

CURE TIMES	Temperature	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (77°F)
	No loading or immersion	8 hours	5½ hours	4 hours	3½ hours
	Machining and/or light loading	12 hours	9 hours	6 hours	4½ hours
	Full mechanical or thermal loading	3 days	2 days	1½ day	24 hours
	Immersion in chemicals	5 days	3 days	2 days	1½ day

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



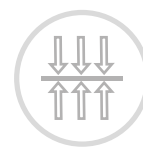
**EROSION  
RESISTANT**



**CORROSION  
RESISTANT**



**CHEMICAL  
RESISTANT**



**HIGH COMPRESSIVE  
STRENGTH**



**EASY TO APPLY**

## Key Benefits:

- **Erosion-corrosion resistance**

Belzona 1321 offers outstanding erosion and corrosion resistance under immersed conditions.

- **Chemical resistance**

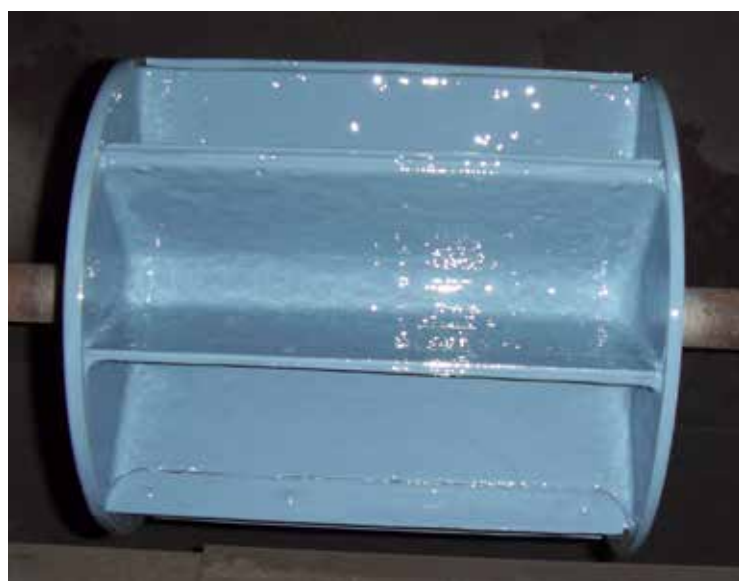
Belzona 1321 is resistant to a variety of chemicals, including hydrocarbons and process chemicals.

- **Suitable for injection**

Belzona 1321 will not expand, shrink or distort, making it suitable for use as an injection material.

- **Solvent free**

This solvent-free solution reduces the health and safety risks associated with applying material in confined spaces.



## Application Areas:

- **Immersed equipment**

This erosion-corrosion resistant coating protects fluid flow equipment such as pumps, pipes, valves.

- **Heat exchangers**

Belzona 1321 can be used to restore heat exchangers suffering from erosion-corrosion damage.

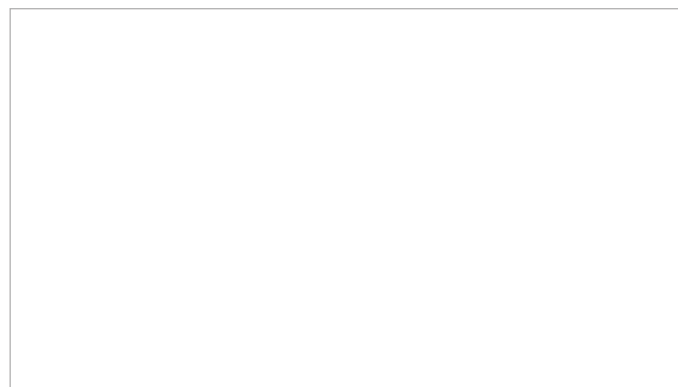
- **Contact with potable water**

This system is an approved coating which can be applied onto equipment in contact with potable water.

- **Load bearing shims**

Belzona 1321 can be injected to create load bearing shims due to its high compressive strength and zero shrinkage.

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.