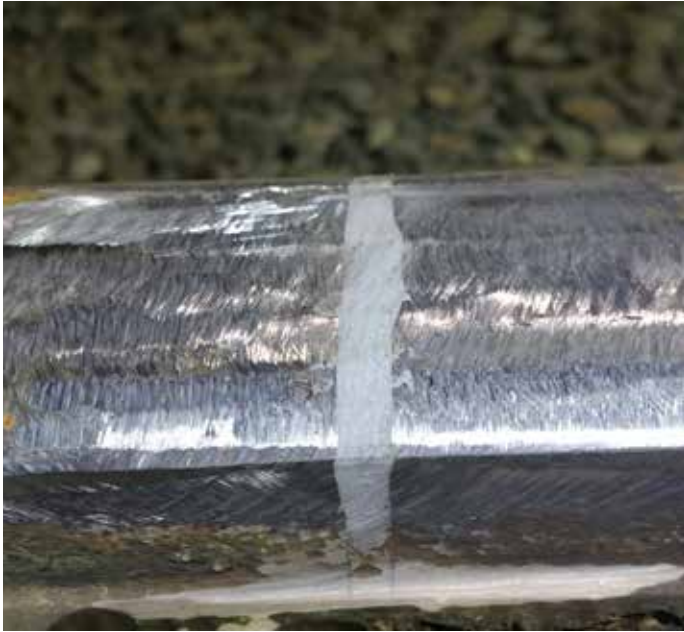


# A Fast-Curing Metal Repair Composite for High Speed Emergency Repairs



Belzona 1221 (Super E-Metal) is a two component emergency repair composite based on a ceramic steel reinforced polymer system. This fully machinable Belzona product can be used for the permanent bonding, repairing or rebuilding of metallic components.

Belzona 1221 can be applied without the need for specialist tools. It will bond strongly to almost any rigid surface.

This multipurpose emergency repair material will not corrode and is resistant to a wide range of chemicals.



|                |                                |                                  |                              |                                |
|----------------|--------------------------------|----------------------------------|------------------------------|--------------------------------|
| TECHNICAL DATA | Mixing Ratio (Base:Solidifier) | 1 : 1 by volume                  | 2 : 1 by weight              |                                |
|                | Working Life                   | 3 minutes at 25°C (77°F)         |                              |                                |
|                | Shelf Life                     | 5 years                          |                              |                                |
|                | Heat resistance                | 150°C (302°F) dry                | 60°C (140°F) wet             |                                |
|                | Adhesion (Tensile Shear )      | Mild steel: 17.2 MPa (2,500 psi) | Copper: 12.4 MPa (1,800 psi) | Aluminum: 10.3 MPa (1,500 psi) |

|            |                                    |             |             |             |             |
|------------|------------------------------------|-------------|-------------|-------------|-------------|
| CURE TIMES | Temperature                        | 10°C (50°F) | 15°C (59°F) | 20°C (68°F) | 25°C (77°F) |
|            | No loading or immersion            | 16 minutes  | 15 minutes  | 14 minutes  | 13 minutes  |
|            | Machining and/or light loading     | 50 minutes  | 45 minutes  | 40 minutes  | 35 minutes  |
|            | Full mechanical or thermal loading | 100 minutes | 90 minutes  | 75 minutes  | 60 minutes  |
|            | Immersion in chemicals             | 36 hours    | 30 hours    | 24 hours    | 20 hours    |

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



**FULLY MACHINABLE**



**EXCELLENT ADHESION**



**FAST CURE**



**CORROSION RESISTANCE**



**EASILY TO APPLY**

## Key Benefits:

- **Corrosion and chemical resistance**  
This multipurpose emergency repair material will not corrode and is resistant to wide range of chemicals.
- **Excellent adhesion**  
The material can be applied in thin or thick sections in one operation and bonds strongly to almost all rigid substrates.
- **Fast cure**  
Due to its fast-curing characteristics, this repair material is ideal for emergency repair situations and allows a rapid return to service.

## Application Areas:

- Leaking pipes
- Scored hydraulic rams
- Leaking tanks
- Stripped threads
- Fractured and holed casings
- Bearing seats
- Damaged insulators
- Ducts
- Hoppers

## Application: Before & After



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.