

Belzona Pioneers Multipurpose Metal Repair System for Oil Contaminated and Wet Surfaces, even Underwater

New paste grade material achieves a quick, durable repair even in oil contaminated wet and cold areas, with excellent adhesion to manually prepared substrates where grit blasting is not possible.

Research and Development Chemist, Jason Horn said, “Over the years, we have had many conversations with engineers across a range of industries who have expressed the need for a quick-curing repair system suitable for a large variety of application situations. This includes problem areas such as water, oil and fuel leaks on storage tanks, pipework, transformers, sumps, etc. In response to this, our R&D team has developed an extremely versatile, easy-to-use system that can be applied in any industry where the repair and protection of machinery, equipment, buildings and structures is required.”



[Image 1&2. Excellent adhesion to oil contaminated and wet surfaces, even underwater]

When ideal surface preparation of a metallic substrate cannot be achieved due to lack of time or resources, Belzona 1212 provides a cost-effective and durable repair that can reinstate equipment for years of service. With a high level of tolerance to surface contamination and excellent adhesion to manually prepared substrates, this fast curing material is ideally suited for applications where grit blasting cannot be achieved.

Reduced Downtime with Rapid Cure Surface Tolerant Repair System

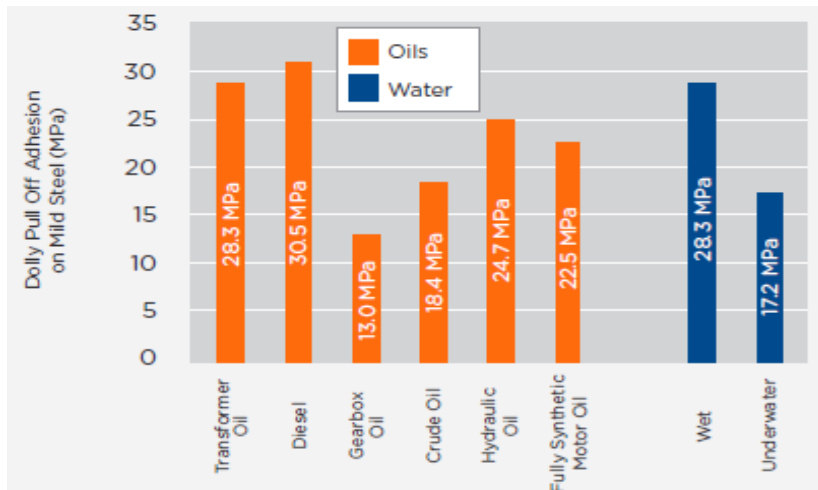
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One of the major challenges faced by maintenance engineers across many industries is the extremely limited amount of time in which an urgent repair, such as a pipe or tank leak, must be carried out. In the real world, when a rapid repair is required, ideal surface preparation is not always an option. However many available repair solutions are not always compatible with minimal surface preparation, and therefore can often lead to failure.

Belzona 1212 has been specifically designed to bypass the need of grit-blasting while still providing excellent adhesion to surfaces contaminated with an extensive range of oils and fuels, wet surfaces or even underwater. Following a rigorous series of tests using surfaces contaminated with a selection of commonly encountered oils and fuels, Belzona 1212 demonstrated strong adhesion to non-grit-blasted surfaces.



[Image 3. Belzona 1212 demonstrates excellent adhesion to contaminated mild steel surfaces prepared to SSPC-SP11/ISO 8501-1 St3 (power tool cleaned)]

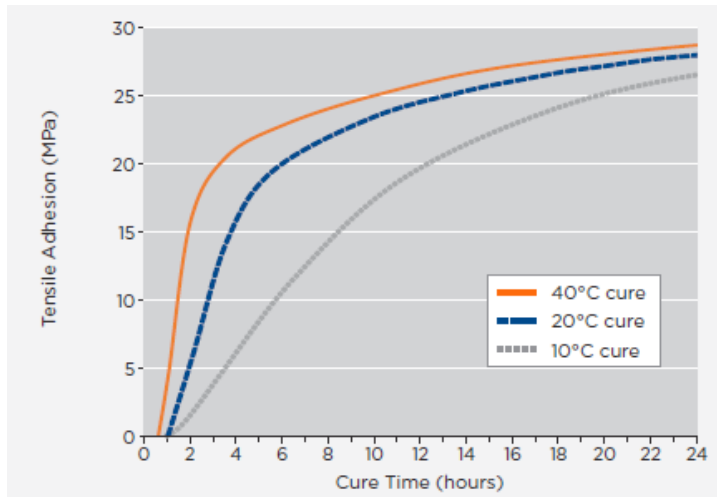
Many application environments, such as marine and splash zones, require a water tolerant repair system. Belzona 1212 displaces water from the substrate and can be applied to damp or underwater surfaces yielding excellent adhesion (Pull-Off Adhesion (ASTM D4541) 17mpa (2500 psi) in underwater application and cure). Therefore when a corrosion repair is required, for example on a ship, instead of taking the vessel out of service for dry dock repair, the corrosion spots can be easily and successfully fixed in situ, cutting out unnecessary downtime.

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Belzona 1212 will cure rapidly after mixing of the two components, even in low temperatures without compromising on durability or strength. In temperatures as low as 5°C (41°F), this repair system will still exhibit the same robust, hard-wearing properties synonymous with Belzona epoxy technology.



[Image 4. Belzona 1212 cures rapidly even in low temperatures]

Following a 90 minute cure at 20°C (68°F), a one inch square bracket bonded with Belzona 1212 will be able to support a tensile load of greater than 200kg (440lbs). After a 4 hour cure at 20°C (68°F), the same bracket will be able to support a load of greater than 1000kg (2200lbs)

England's Strongest Man Vs. Belzona 1212

At the Belzona 1212 product launch that took place at the Belzona Technology Centre in Harrogate, UK, England's strongest man, Tom Shaw, was challenged with the task of separating two plates bonded together with Belzona 1212. Before the plates were bonded together, they were manually prepared followed by immersion in oil and water.

In the live action stunt, Tom pulled a 17 seater mini bus (weighing 5 tonnes) full of delegates with a tow rope attached via the bonded brackets after just 90 minutes from application. Despite being able to deadlift 380kg, Tom was unable to part the plates, a testament to the exceptional strength exhibited within this new technology which is just one of its many pioneering properties.

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[Caption: Plates remain bonded together with revolutionary new emergency repair material]

Belzona 1212 will be showcased at the 2015 Utilities Week Live incorporating IWEX on the **21st- 23rd of April**. The demonstrations, taking place at **Belzona's stand G30**, will feature a live application where the multi-purpose repair system will be applied to underwater and oil contaminated metallic plates, showing the material's ability to adhere to surfaces where ideal surface preparation is not always an option. The event will take place at the NEC exhibition centre in Birmingham, England, and Belzona will be represented by our experienced Commercial and Regional Business Managers who will be available for technical and commercial discussions at Belzona's stand.

For further information on this product and application or to book an appointment with your local Belzona representative, please contact belzona@belzona.co.uk

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Words: 807

Notes to Editor:

About Belzona:

- Established in 1952, Belzona has pioneered innovative polymer technology that has revolutionised industrial repair and maintenance procedures.
- Belzona is a leading company in the design and manufacture of polymer repair composites and industrial protective coatings for the repair, protection and improvement of machinery, equipment, buildings and structures.
- At Harrogate, the full Belzona product range is manufactured to stringent quality and environmental control guidelines complying with the requirements of ISO 9001:2008 and ISO 14001:2004.
- Belzona has over 140 Distributors in more than 120 countries ensuring not only the availability of Belzona materials, but also specification support, project management, application and supervision services. Distributorships and their teams are supported by Belzona Corporate offices in Europe, North America and Asia.

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