

Belzona Solutions for the

PETROCHEMICAL INDUSTRY

Find out why engineers and plant managers are using Belzona repair composites and protective coatings and linings for reliable, long-lasting maintenance solutions.



About

BELZONA SOLUTIONS

Watch our video



'One Minute with Belzona in
the Petrochemical Industry'

Belzona AND PETROCHEMICAL

Petrochemicals are integral to modern life; being used in the production of anything from plastics to fertilisers, and solar panels to clothing.

Our mission is to maintain the integrity of your assets allowing you to maximise your productivity.

Corrosive petrochemicals can have severe effects on process equipment as well as countless safety issues associated with the manufacturing process.

Equipment used in the separation, mixing, blending, heating and/or cooling systems often function at elevated temperatures and in high-pressure environments, leaving it vulnerable to corrosion, erosion, and chemical attack.

MAXIMISE PRODUCTIVITY

PROTECT EQUIPMENT

NO HOT WORK



Avoid

UNPLANNED SHUTDOWNS

To avoid unplanned shutdowns, equipment must be protected from these processes.

By utilising a proven Belzona solution, asset owners can incorporate suitable protection into the OEM designs and components damaged in service can be effectively refurbished.



IN-SITU APPLICATIONS

Ensure maintenance can be carried out quickly with minimum downtime

AVOID REPLACEMENT

Eliminate the need to replace equipment, saving time and money

LONG-TERM PROTECTION

Provide long-lasting erosion and corrosion protection

CHEMICAL RESISTANCE

Protect equipment from chemical attack

NO HOT WORK

Cold bonding solution maximise health and safety with no need for hot work



Why BELZONA

Belzona solutions offer a wide range of benefits, making the applications safe, fast and effective.

We are continually researching and developing our products to stay abreast of the issues industries face and deliver timely solutions.



[Read the case study](#)

Internal Surface Protection

LININGS AND REPAIR COMPOSITES

REDUCE THE ENVIRONMENTAL & FINANCIAL IMPACTS OF REPLACEMENT

Specialist linings provide internal protection for assets throughout the manufacturing process ensuring their long-term reliability.

Applied in-situ to reduce unnecessary downtime, Belzona linings form a barrier between the substrate and corrosive media, enabling you to extend corrosion management timescales.

As well as resisting erosion-corrosion, Belzona linings are designed to withstand vast pressure and temperature fluctuations, including steam-out and explosive decompression.



PROTECTION FROM CHEMICAL ATTACK



BEFORE

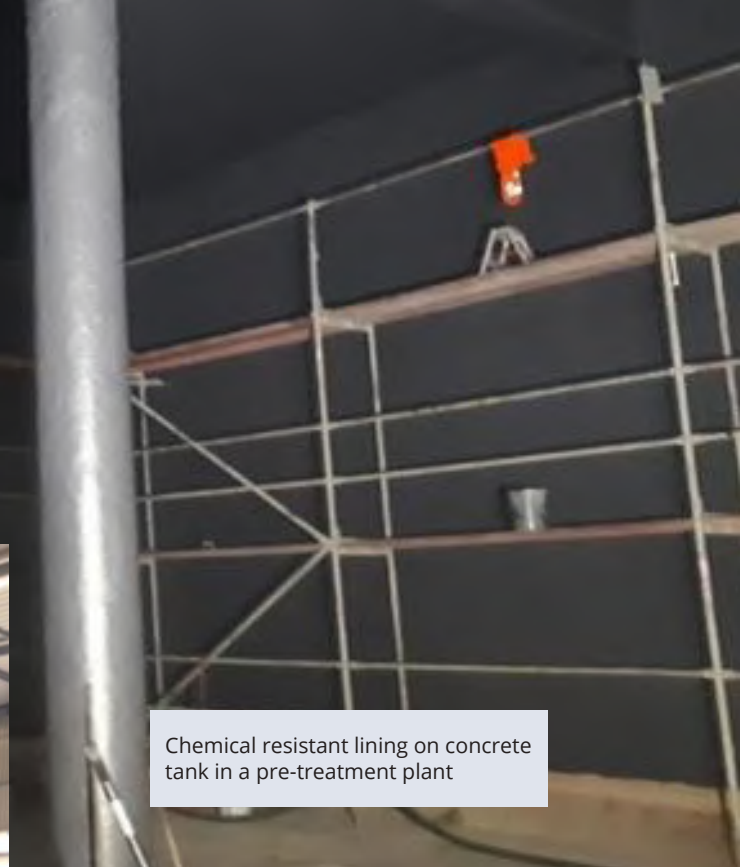


AFTER





Pump Efficiency



Chemical resistant lining on concrete tank in a pre-treatment plant

AVOID REPLACING EQUIPMENT

From slurry thickeners to desalters and gas separators, cooling water systems to heat exchangers, Belzona's internal linings can be applied in both new and damaged assets such as nozzles to provide long-term corrosion and chemical resistance, even to equipment operating under continuous immersion.

Learn how to Repair a Heat Exchanger with Belzona:



Rapid corrosion to brine heat exchanger



Deterioration of previous linings



Belzona high temperature lining applied

BELZONA IN ACTION

BELZONA IN ACTION



Simple to apply with no specialist tools



Pipe rigs bonded to tank wall



External corrosion

COLD BONDING SOLUTIONS

RESTORATION OF STRUCTURAL INTEGRITY & BONDING OF FITTINGS



Learn how to
stop a live leak
on a tank

Thanks to the high levels of adhesion that can be achieved with no hot work or metal distortion, maintenance engineers from across the world have been using Belzona's cold bonding technology for decades.

This type of fast-curing repair is ideal in situations where welding would be inappropriate.



Live leak sealing using plate bonding method



Belzona SuperWrap II Patch applied to restore strength to tank wall



FAST CURING - NO HOT WORK

ELIMINATE HOT WORK



Looking for a structural adhesive?

Cold bonding of fittings eliminates the need for hot work and facilitates rapid installation. With tensile shear adhesion of up to 2,960psi (20.4MPa), pull off adhesion of up to 3,240psi (22.3MPa) and flexural strength of up to 14,300psi (98.6MPa), fittings, framework, handrails and supports can be bonded permanently and safely.

Belzona fatigue resistant adhesives offer a safe and high-performance solution for structural bonding applications requiring high mechanical strength, cleavage and shear resistance.

External Composite
**REPAIR AND
PROTECTION**



COMPOSITE REPAIRS

Thin and through wall defects caused by external and internal corrosion can be repaired using composite repair systems.

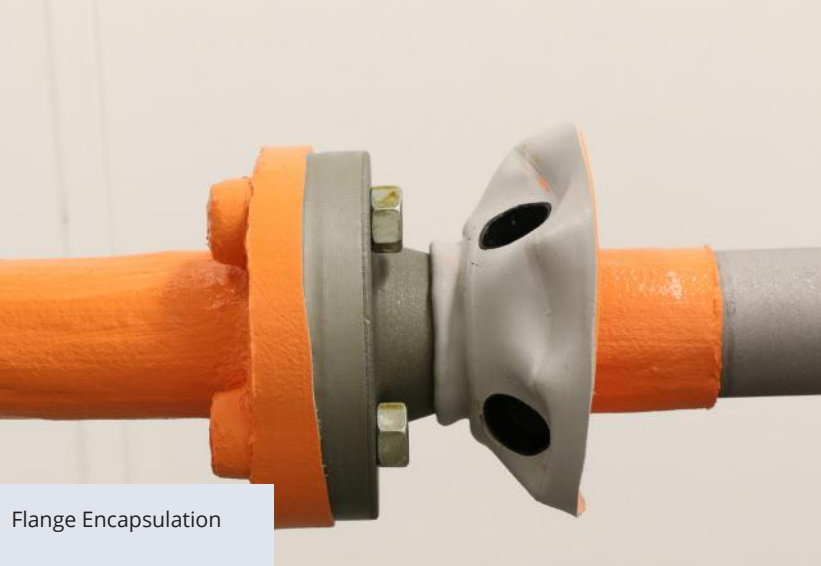
A wrap system is composed of a reinforcement sheet and a Belzona material. The system is tailored to the asset's performance criteria, such as presence of contaminants, operating temperatures and pressures amongst other criteria. The system can also be applied in conjunction with a bonded plate where additional structural reinforcement is required.

Alternatively, Belzona Composite Pads are specially designed to facilitate the fast and simple, in-situ repair of through-wall and thin-wall defects on pipes and tank walls.

High pressure
leak repair:



BELZONA IN ACTION



Flange Encapsulation



Extreme corrosion on base of tank



Corroded flange



Flange face form with Belzona



Tank base sealed with Belzona

FLANGE PROTECTION

Repairing flange crevice corrosion can be a very costly exercise. Belzona encapsulating membrane system seals bolted flange connections preventing corrosion. The liquid applied system is designed for periodic inspection, where the flexible protection can be cut, peeled back and then easily resealed.



Learn more
about flange face
forming

TANK SEALING & PROTECTION

Tank sealing and protection sealant failure, adverse weather conditions or condensation can lead to corrosion of the tank base, leakage and ultimately tank failure. To combat these problems, Belzona formulated a tank base sealing system which is liquid applied in conjunction with a reinforcement sheet.



See this
solution in
action:



Maintenance of **BUILDINGS & STRUCTURES**

HIGH PERFORMANCE POLYMERIC SOLUTIONS

Belzona provides a portfolio of solutions to those responsible for the maintenance of petrochemical refineries. This can range from the roofs, floors and walls structures themselves, to the equipment within.



Chemical resistant coating



Newly fabricated chemical
containment area



Area protected from impact,
abrasion, heat and chemical attack

CHEMICAL CONTAINMENT AREAS

Containment areas and supporting wall structures can be rebuilt and resurfaced using light-weight, chemically resistant materials designed to provide long-term protection against a wide range of substances, including acids and alkalis, even at high temperatures and concentrations.



Leaking substation roof



Fully protected with Belzona membrane

SAFETY SYSTEMS

Slip and fall injuries are one of the biggest causes of injury related absence and industrial compensation. Belzona's hard wearing safety surfacing polymers are specially designed to minimise the risk of slippage in potentially dangerous areas such as ladder rungs, stair treads, ramps, walkways, and areas around machinery.



Weighbridge requiring grip system



Belzona solution providing outstanding grip

BELZONA IN ACTION

WALL & ROOF REPAIR

Seamless roofing membranes offer outstanding waterproofing and weatherproofing capabilities, ensuring long-term repair, reducing the need for expensive replacement and disruptive structural work.



VISIT OUR WEBSITE:
www.hatcon.com

Belzona Distributors can provide detailed information about product specifications and are fully trained to offer Belzona solutions safely and successfully.

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