



Alchemy[®]
Oilfield Services Limited

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Alchemy DynaCeal[®]

Description

Alchemy DynaCeal[®] is a dynamic sealing system based on the application of a fluid which sets in a time dependant manner to form a solid polymeric material. DynaCeal[®], which is based on a catalysed chemical system, is deployed as a two-part kit, the components of which are mixed together at the work site before being injected into the area where sealing is required. The setting time of the material can be adjusted by the relative proportions of chemicals (Base and Link) added together and injected into the seal area to allow for the most effective application, especially where the leak paths are difficult to reach. When the system has been repaired the DynaCeal[®] can be easily removed or broken down in situ to allow the system to return to normal operating conditions.

Applications

Alchemy DynaCeal[®] is extremely effective in providing a barrier to isolate pipelines and valves where leaks are present to allow intervention to carry out a repair.

Case History

A NRV, present in a North Sea pipeline, was leaking. Downstream of this valve a further piece of equipment had to be repaired. This repair could not be carried out without integrity at the NRV. The NRV was at the bottom of a vertical section of line which was filled with sea water with no direct access possible, the nearest application point being above the valve position. DynaCeal[®] was applied as a higher density material further upstream in the system by direct application to the vertical pipeline some metres above the NRV and allowed to fall down into the NRV position to attain a seal. After application and allowing time for the material to be placed and set in the correct position the system was tested before depressurisation. The DynaCeal[®] formulation, in testing prior to application, held pressure of up to 150 Bar and this performance was replicated in the field allowing for all repairs to be carried out safely and securely.

DynaCeal[®] was used to seal a pipeline within the structure of a North Sea platform leg where a leak had occurred. The DynaCeal[®] was used to stabilise a Brinker Platelet to allow a Tecnowrap to be placed over the leaking area and allow production operations to resume.

DynaCeal[®] has also been used to seal leak paths at wellheads for Centrica and Enquest when a loss of integrity has been found and an isolation has to be made.

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Registered Office: Johnstone House, 52-54 Rose Street, Aberdeen AB10 1HA ~ Registered in Scotland 279923 ~ VAT Number 856 7108 04



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Additional Features

Alchemy is able to formulate DynaCeal[®] with different densities to allow the applied material to be placed in the correct area for maximum sealing efficiency.

Typical Properties

Colour of Base	White viscous liquid
Colour of Link (catalyst)	Pale Yellow liquid
Colour of evenly mixed product	White
Viscosity of mixed product	Approx. 900cPs @ 18°C
Density	0.98 – 1.2 @ 20°C
Pot Life at Ambient Temperature	ca. 2 – 6 hours
Set Time at Ambient Temperature	24 – 48 hours
Recommended storage Temperature	below 30°C

Supply

The product is supplied in kits containing the relevant Base and Link to meet client's requirements. DynaCeal[®] is normally supplied in 5 to 25 litre volumes. Larger amounts may be supplied upon request.