



TECHNICAL
INFORMATION
SHEET

ENCAPSULATED ENZYME BREAKER

DRB-EZ is an encapsulated enzyme breaker for use as a delayed release breaker for hydraulic fracturing fluids. It can be substituted for conventional enzyme breakers currently being used in fracturing fluids. It is designed for use in fluids with a pH below 8.5 and a temperature up to 180 degrees Fahrenheit but can be used above a pH of 8.5 if ran in conjunction with DRB-SB buffering agent.

Encapsulated breakers delay the release of active breaker material into the fracturing fluid to minimize the early effects of the breaker on the fluid. This delay allows higher breaker concentrations to be used without compromising the proppant transport capacity of the fracturing fluid. The solid breaker also may be concentrated in the fracture and not lost to the formation during fluid leak-off. These two advantages combine to improve fracture conductivity by enhancing fluid clean-up.

Advantages:

- Higher breaker concentration can be used without compromising fluid viscosity
- Breaker is not lost to formation during fluid leak-off
- Improves fracture conductivity by enhancing clean-up
- Protects enzyme from temporary adverse conditions

DRB-EZ can be directly substituted for hemi-cellulase enzymes currently used in fracturing fluids. As with any fracturing application, it is recommended to conduct breaker tests with the fluid formulations to determine the optimum concentration of product.

DRB-EZ is normally using in concentrations of 1 to 5 lbs per 1,000 gallons of frac fluid.