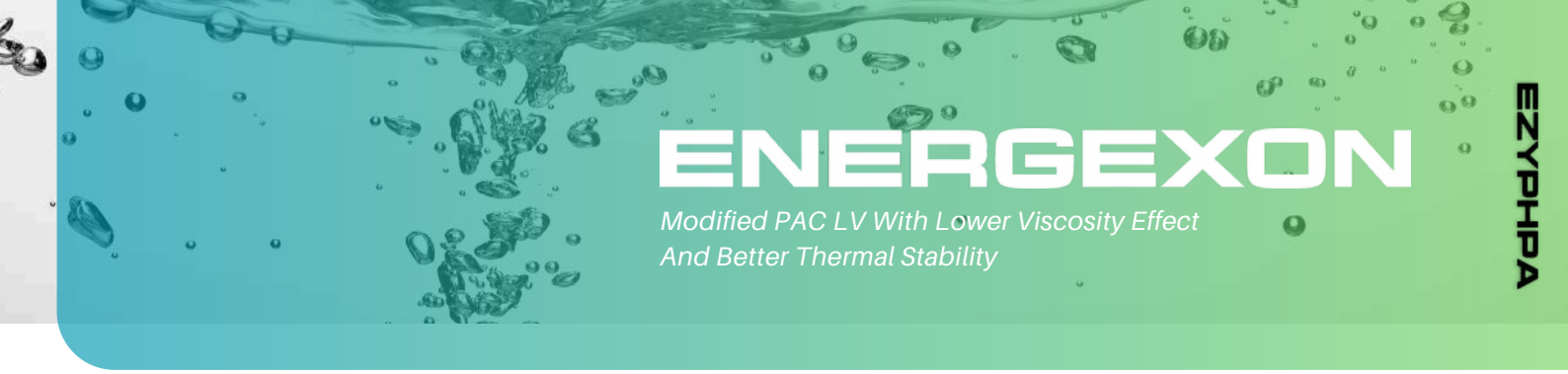

# ENERGEXON

*Modified PAC LV With Lower Viscosity Effect And Better Thermal Stability*

EZYPHPA

## At a Glance

**EzyPAC** is a modified PAC that retains its superior filtration control while exhibiting lower viscosity and improved thermal stability.

### Applications

Water-based drilling fluids ranging from freshwater, seawater, to sodium or potassium chloride brines.

### Mixing

Added directly as a dry powder or pre-mixed in solution

### Handling

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the SDS.

### Packaging

50-lb or 25-kg, multiwall paper sacks

### Normal Concentration

0.3%-0.5% (w/v)

### Advantages

- Enhanced Ca2+ Resistance
- Encapsulation of Cuttings
- Shale Stabilization
- Friction Reduction:
- Viscosity and Rheology

## ENGINEERING

**EzyPHPA** is a chemically modified Partially Hydrolysed Polyacrylamide (PHPA) designed to retain the functionality of conventional PHPA while exhibiting enhanced resistance to calcium. The chemical structure of PHPA is modified in **EzyPHPA** to reduce its susceptibility to cross-linking when exposed to calcium ions. This modification involves increasing the degree of hydrolysis of the acrylamide polymer. As a result, the distribution of carboxyl groups along the polymer chain becomes more widespread.

This strategic spacing effectively reduces the number of potential sites available for cross-linking with calcium ions, thus enhancing the polymer's performance in environments with calcium contamination.

**EzyPHPA** also has the functionality and features of a conventional PHPA.

**EzyPHPA** has encapsulating properties that help in the agglomeration of fine cuttings. It coats the drill cuttings, preventing them from dispersing into the drilling fluid. This encapsulation aids in the efficient removal of cuttings from the well and helps maintain the integrity of the drilling fluid.

**EzyPHPA** is effective in stabilizing reactive shales and clays. It achieves this by adsorbing onto clay particles and creating a protective polymer layer that inhibits water uptake, thus preventing the swelling and disintegration of shale formations adjacent to the drill hole.

## TYPICAL PROPERTIES

| | |
|---|---|
| **Appearance** | **White granular powder** |
| **Bulk Density (g/cm3)** | **0.80-0.90** |
| **pH (1% solution)** | **8.0-11.0** |
| **Tolerate up to 1,000 ppm free calcium contamination** | |


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