



PAC™-R

Filtration Control Additive

Description PAC™-R modified natural cellulosic polymer provides filtration control in most water-based drilling fluids. PAC-R additive, when added to a QUIK-GEL® slurry, yields a drilling mud system suitable for drilling in sandy formation. PAC-R additive can be added to vegetable or mineral oil to provide an oil-based fluid suspension, which can be poured into drill string directly. PAC-R additive is also used in air/gel-foam drilling.

Applications/Functions

- Can provide filtration control in fresh or brackish water-based drilling fluids
- Can promote borehole stability in water sensitive formations
- Can minimize rotational torque and circulating pressure
- Can improve hole cleaning and core recovery
- Can stiffen foam to improve cuttings transport in air/foam drilling
- Can reduce air requirements, uphole velocity and borehole annulus pressure in air/foam drilling

Advantages

- Effective in fresh water, salt water and brackish water-based drilling fluids
- Effective in small quantities for filtration control
- Non-fermenting
- Compatible with other Baroid drilling fluid additives
- Resistant to harsh environments and contaminants

Typical Properties

- | | |
|----------------------------|----------------------------|
| • Appearance | White, free-flowing powder |
| • pH (1% aqueous solution) | 8.0 |

Recommended Treatment

- Using a Venturi mixer, or into vortex of a high-speed stirrer, add slowly and uniformly to the entire circulating system.

**Recommended
Treatment
(continued)**

Approximate Amounts of PAC™-R Additive Added to Water-based Fluids		
Desired Condition/Result		
<i>Added to fresh or salt water</i>	lb/100 gal	kg/m³
<ul style="list-style-type: none"> To stabilize water sensitive formation 	3 – 5	4 – 7
<ul style="list-style-type: none"> To reduce torque and lower circulating pressure 	0.5 - 1	0.6 - 1.0
<i>Added to QUIK-GEL slurry (25 lb/100 gallons) or (30 kilograms per m³)</i>	lb/100 gal	kg/m³
<ul style="list-style-type: none"> To reduce filtration rate and improve borehole stability 	0.5 - 1.5	0.6 - 1.7
<i>Added to BORE-GEL® slurry (35 lb/100 gallons) or (42 kilograms per m³)</i>	lb/100 gal	kg/m³
<ul style="list-style-type: none"> To reduce filtration rate and improve borehole stability 	0.5 - 1.0	0.6 - 1.2
<i>Added to injection liquid in air/foam drilling</i>	lb/100 gal	kg/m³
<ul style="list-style-type: none"> To improve foam performance and hole condition 	0.5 - 1.5	0.6 - 1.7

Note:

Very salty waters may require twice as much PAC-R additive as fresh water. Preferably, PAC-R additive should be mixed in fresh water before it is added to very salty water.

Packaging PAC-R filtration control additive is packaged in 50-lb (22.7 kg) bags.

Availability PAC-R filtration control additive can be purchased through any Baroid Industrial Drilling Products Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

**Baroid Industrial Drilling Products
Product Service Line, Halliburton
3000 N. Sam Houston Pkwy. E.
Houston, TX 77032**

Customer Service	(800) 735-6075 Toll Free	(281) 871-4612
Technical Service	(877) 379-7412 Toll Free	(281) 871-4613
