



enventives

# QUICK-SQUEEZE™

## RECOMMENDATIONS

A 100 bbl slurry should be pumped at thief zone. Fill backside with water. Close BOPs and begin applying soft squeeze at 50 psi up to 250 psi and hold for 4 to 6 hours

A fluid technician is available to assist in specific recommendations based on actual hole conditions. The key factors to obtaining a successful Quick-Squeeze™:

First, a slurry with an extremely high solids content and high fluid loss must be prepared. Second, the slurry must be placed at the proper location in the wellbore.

Tables are provided for typical formulations of 1 bbl of Quick-Squeeze™ slurry. If saturated saltwater is used, barite should be decreased by 0.6 sacks per barrel.

Due to variations in base oils and synthetic base oils and the effects on barite, pilot testing is highly recommended to determine precise formulations. Slurries that become too thick should have up to 1.0 bbl of wetting agent added to aid in thinning the slurry.

## BENEFITS

Fastest mix times in the industry. Cures complete loss circulation. Replaces costly cement squeezes. Will not harden in the drill string. Can be used in Water, Oil and Synthetic Muds. Prevents sidetracking of wellbore. No additional LCM's required. Works with conventional rig mixing and pumping equipment. If needed, can be cleaned up through economical alkaline treatments.

## GENERAL INFORMATION

Our Quick-Squeeze™ has been developed as an improved solution for severe to complete loss of returns. Quick-Squeeze™ incorporates our newest "Quick2Mix™" technology during the manufacturing process. Quick-Squeeze™ has been specifically developed to mix on site up to twice as fast as our best selling premium products which already mix faster than our competitors premium squeeze products. The Quick-Squeeze™ unique chemistry will produce a hardenable slurry designed to be squeezed into down-hole loss zones. The high fluid loss and high solids content properties of the slurry combined with the large particle size distribution of the bridging and sealing materials in Quick-Squeeze™ quickly form a solid plug allowing wellbore returns to be established and to remain throughout extended drilling operations. Quick-Squeeze™ may be utilized in Water-based, Oil-based and Synthetic-based fluid systems, pilot testing is recommended to ensure compatibility. A typical 100 pumpable barrel application can be prepared on-site utilizing conventional rig mixing equipment in less than 2 hours. A soft squeeze should be held at 50-250 psi for 4-6 hours. Quick-Squeeze™ may cause contamination of the drilling fluid and when necessary can be cleaned up by means of conventional high alkaline treatments. Quick-Squeeze™ seals are capable of withstanding swab and surge pressures incurred during normal drilling and pipe tripping operations. No additional products are required. No special mixing equipment is required. Quick-Squeeze™ provides a quick, effective and economical response to severe loss circulation events.

## TYPICAL PROPERTIES

Composition : Wide range of graded particles, bridging and sealing agents  
 Form : Powder  
 Color : Gray to White  
 Bulk Density (lb/cu. ft) : Compacted 20-35  
 : Uncompacted 10-25  
 pH : 11.5-12.8  
 Solubility: : Partially soluble in water

## PACKAGING

Quick-Squeeze is packaged in 25 lb. Kraft paper bags, 50 bags per pallet. Special packaging requirements will be quoted upon request.

## PRECAUTIONS

See the Safety Data Sheet for more detailed information concerning storage, handling, transportation, disposal and safety requirements.

1.0 BBL FORMULATION TABLE  
FRESH AND SEA WATER FLUIDS

Density lb/gal	pounds of Quick-Squeeze™	sacks of barite	bbls of Water, Fresh or Sea
9	60	0.0	0.93
10	60	0.6	0.89
11	58	1.2	0.86
12	50	1.8	0.82
13	48	2.3	0.79
14	43	2.9	0.76
15	38	3.5	0.72
16	35	4.0	0.69
17	30	4.6	0.66
18	28	5.2	0.62
19	23	5.8	0.59

1.0 BBL FORMULATION TABLE  
OIL AND SYNTHETIC BASE FLUIDS

Density lb/gal	pounds of Quick-Squeeze™	sacks of barite	bbls of Water, Fresh or Sea
8	55	0.0	0.880
9	50	0.0	0.855
10	48	1.2	0.830
11	43	1.8	0.805
12	40	2.3	0.770
13	38	2.9	0.745
14	33	3.5	0.720
15	30	4.0	0.695
16	28	4.6	0.670
17	25	5.2	0.645
18	20	5.8	0.610

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### Standard QUICK-SQUEEZE™ Procedure:

1. Ideally, enough slurry should be available to cover all potential loss zones, as well as enough excess volume available for squeezing operations.
2. No special equipment is needed to pump Quick-Squeeze. The slurry can be mixed in an empty mud pit (uncontaminated) and pumped with rig pumps.
3. A weighted slurry should be the same density as the drilling mud in use.
4. Quick-Squeeze can be pumped through the bit, MWD and LWD tools.

#### Pump in Procedures:

1. Place bottom of drill pipe or bit at depth that will allow an equivalent volume to remain inside the casing above the casing shoe.
2. Place the bit at the casing shoe, pump Quick-Squeeze to the bit and follow the steps below to squeeze from the drill pipe.
3. Trip In Hole to the top of the loss zone. Pump the Quick-Squeeze slurry, as a balanced plug, then pull out of the squeeze slowly to the casing shoe and begin hesitation squeeze at this point.
4. Place the bit at the casing shoe; pump the Quick-Squeeze up the backside in the casing annulus until the squeeze clears the bit.

Follow the squeeze procedure below, pumping down the back or casing annulus side.

5. Pump the slurry at 2 bbls/min until it reaches the end of the pipe. Before beginning the hesitation squeeze, check the annulus. If no fluid can be seen, use the fill-up line to fill the hole.
6. Close annular BOP and pump the slurry at 1 bbl/min. This will direct the Quick-Squeeze slurry down the hole to the point of losses. Pump the full open hole volume, plus an additional 20-30 bbls, leaving the remainder of the slurry in the casing or drill pipe.
7. Begin pumping again at 1/4 - 1/2 bbl/min. When a pressure of 50 psi is obtained, discontinue pumping for 10-15 minutes. Repeat this procedure until 50 psi can be maintained, then attempt to progressively increase the pressure in 25-50 psi increments. With this hesitation squeeze method; there will be a pressure bleed off each time the pump is stopped. With each successive squeeze, the pressure should stabilize at a higher level.
8. A 200-600 psi squeeze result is generally considered to be very good, however squeeze pressure should not exceed the maximum required fluid density needed in this hole interval. When maximum holding pressure is obtained, shut down for 4 hours.
9. Bleed the pressure from the annulus slowly and circulate any water and or remaining Quick-Squeeze out of the hole.
10. Stage the drill pipe back into the hole slowly, monitoring the weight indicator for bridging trends. Wash to bottom, drilling through any Quick-Squeeze plug encountered. Any remaining Quick-Squeeze may be incorporated into the drilling fluid. Quick-Squeeze