## X-Prima\*\*

HIGH FLUID LOSS SQUEEZE



#### PRODUCT DESCRIPTION

X-Prima<sup>™</sup> high fluid loss squeeze is a proprietary blend of granular and fibrous materials in a one-sack, high-solids formulation.

#### **BENEFIT**

X-Prima squeeze material is particularly effective in the remediation of severe lost circulation.

#### **APPLICATION**

X-Prima high fluid loss squeeze provides deep sealing in natural and induced fractures, vugular formations, severely depleted sands and rubble zones. Usually, the application will take the form of a hesitation squeeze, whereby slurry is pumped into the loss zone and afterwards subjected to a series of low-volume injections. A waiting period follows each injection to allow dewatering and sedimentation to take place. As the thief zone is bridged and sealing begins, incremental increases in pressure force water out of the slurry, thus leaving a matrix of solids in place to plug the loss zone. Once circulation is restored, the annular face of the plug is sealed and reinforced through the deposition of solids. Where appropriate, the X-Prima slurry may be supplemented with additions of 5-10 lb/bbl of NewPlug™ medium or other proppant material to further enhance X-Prima's effectiveness in sealing thief zones.

#### TREATMENT RECOMMENDATION

X-Prima squeeze material is mixed as a slurry and weighted to at least the density of the drilling fluid system. The material can be mixed with fresh water-, oil- or synthetic-based drilling fluids, but it should be noted that the filtration rate and the quality of the plug matrix are negatively affected if oil or synthetic fluid is used in the slurry. It is generally recommended that the slurry volume be twice as much as the open hole volume, provided the mixing facilities have sufficient capacity. While the slurry can be pumped into the drill string using the rig pumps, it is advisable that a cement pumping unit be used for the displacement and hesitation squeeze sequence for maximum precision in managing injected volume and pressure.

#### **PARTICLE SIZE DISTRIBUTION**

Retained on 10 Mesh	2%
Retained on 20 Mesh	3%
Retained on 50 Mesh	27%
Retained on 100 Mesh	38%
Retained on 140 Mesh	22%
Retained on 200 Mesh	6%
Retained on 325 Mesh	2%
Passing 325 Mesh	Trace

#### **TYPICAL PHYSICAL PROPERTIES**

Appearance	White to light gray blended material
Solubility in Wate	+/- 2%
Specific Gravity	1.8

#### HANDLING AND STORAGE

Minimize exposure to dust. Store in a dry area. Use appropriate hygiene, clothing and personal protective equipment suitable for work being done. Review the SDS thoroughly before using this product.

#### **PACKAGING**

X-Prima high fluid loss squeeze is available in 25-pound (11.3 kilogram) multi-walled bags, 100 bags per pallet.

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### PRODUCT BULLETIN

# $X-PRIMA^{TM}$

HIGH FLUID LOSS SQUEEZE

### X-PRIMA SLURRY FORMULATION CHART (STANDARD)

Slurry Weight (lb/gal)	Water (bbl)	X-Prima (lbs/bbl)	Barite (lbs/bbl)
9.3	0.81	105	0.0
9.5	0.79	112.5	0.0
10.0	0.77	110.3	28.8
10.5	0.76	107.9	57.7
11.0	0.75	105.3	86.5
11.5	0.74	102.5	115.4
12.0	0.73	99.6	144.2
12.5	0.72	96.5	173.1
13.0	0.71	93.3	201.9
13.5	0.70	90.0	230.7
14.0	0.69	86.5	259.6
14.5	0.68	83.0	288.4
15.0	0.67	79.3	317.3
15.5	0.66	75.5	346.1
16.0	0.65	71.6	375.0
16.5	0.64	67.6	403.8
17.0	0.63	63.5	432.6
17.5	0.62	59.3	461.5
18.0	0.61	55.0	490.3
18.5	0.60	50.6	519.2
19.0	0.59	46.2	548.0

## X-PRIMA SLURRY FORMULATION CHART (METRIC)

Slurry Density (kg/m³)	Barite (kg/m³)	X Prima (kg/m³)	Water (m³)
1050	0	300	8.7
1100	0	300	8.5
1150	16.1	300	8.3
1200	82.2	300	8.2
1250	148.3	300	8.0
1300	214.5	300	7.9
1350	280.6	300	7.7
1400	346.7	300	7.5
1450	412.9	300	7.4
1500	479.0	300	7.2
1550	545.1	300	7.0
1600	611.3	300	6.9
1650	677.4	300	6.7
1700	743.5	300	6.6
1750	809.6	300	6.4
1800	875.8	300	6.2
1850	941.9	300	6.1
1900	1008.0	300	5.9
1950	1074.1	300	5.8
2000	1140.3	300	5.6

