

- DESCRIPTION** Fritz FL-18 is a synthetic polymer used to control the loss of filtrate from water-based drilling fluids. FL-18 displays exceptional performance in fresh, salt and KCl water-based fluids.
- ADVANTAGES**
- FL-18 provides exceptional filtrate control at temperatures up to 400°F (204 C).
 - Test data indicates that FL-18 is 20 to 30% more effective than other commercially available high temperature fluid loss additives for water-based mud systems.
- APPLICATION**
- FL-18 has a viscosifying effect on water-based fluids.
 - It is ideally suited for most high temperature water-based fluid applications.
 - FL-18 should interact well with all other drilling fluid additives.
- PROPERTIES**
- Off-White Powder
 - Specific Gravity – 1.34
 - Activity – 100%
 - pH – neutral
 - Packaged in 50 lb. bags
 - Loading Rate – 2 to 10 lb./bbl
 - See Fluid Loss and Rheology Data

The information contained herein is based on data considered accurate with representative samples. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. The above data does not imply specifications for this product. Fritz Industries, Inc. assumes no responsibility for personal injury or property damage to vendees, users or third parties, caused by the material. Such vendees or users assume all risks associated with the use of the material. Consult the Material Safety Data Sheet before using this product.

FL-18

	Freshwater		Salt Water		
Water, bbl	0.97	0.97	0.4	0.4	0.4
Bentonite, lb.	10.35	10.35	10.35	10.35	10.35
Simulated Sea Water, lb.			193	193	193
NaOH, lb.			1	1	1
Simulated drill solids, lb.	15	15	30	30	30
FRITZ FL-18, lb.	0	6	0	3	6
Properties after hot rolling 16 hr.	@ 150°F				
Temperature, °F	77°F	77°F	77°F	77°F	77°F
600 rpm reading	10	124	16	42	79
300 rpm reading	6	84	11	28	51
200 rpm reading	5	67	9	22	40
100 rpm reading	3	44	7	15	27
6 rpm reading	2	8	6	7	9
3 rpm reading	2	6	6	7	8
Plastic Viscosity, cP	4	40	5	14	28
Yield Point, lb./100 ft. ²	2	44	6	14	23
10 sec. gel, lb./100 ft. ²	1	6	7	7	9
10 min. gel, lb./100 ft. ²	3	7	29	23	23
API Fluid Loss, ml	23.5	6.4	45	6.6	4.8
Properties after hot rolling 16 hr.	@ 400°F		@ 250°F		
Temperature, °F	120°F	120°F	120°F	120°F	120°F
600 rpm reading	9	10	20	57	91
300 rpm reading	8	7	19	51	72
200 rpm reading	6	6	18	48	67
100 rpm reading	5	5	17	47	59
6 rpm reading	4	3	20	48	51
3 rpm reading	4	3	23	49	56
Plastic Viscosity, cP	1	3	1	6	19
Yield Point, lb./100 ft. ²	7	4	18	45	53
10 sec. gel, lb./100 ft. ²	3	3	18	35	60
10 min. gel, lb./100 ft. ²	3	3	24	45	73
HHP, 400°F, 500 psi, ml	103	48			
HHP, 250°F, 500 psi, ml			118	28	16

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	KCl Mud						
Water, bbl.	0.81	0.81	0.84	0.84	0.84	0.84	
Sepiolite, lb.	4	4	4	4	4	4	
Bentonite, lb.	4	4	8	8	8	8	
Attapulgate, lb.	4	4	0	0	0	0	
Fritz SC-10, lb.	6	6	6	6	6	6	
CMC, lb.	0	0	0.25	0.25	0.25	0.25	
KCl, lb.	15	15	15	15	15	15	
KOH, lb.	1.25	1.25	1.5	1.5	1.5	1.5	
Barite, lb.	220	220	250	250	250	250	
Simulated drill solids, lb.	15	15	20	20	20	20	
Blank	0		0				
FRITZ FL-18, lb.		6		5	7	7	
Properties after hot rolling 16 hr. @ 150°F						Before Static Aging	After Static Aging @ 375°F
Temperature, °F	120°F	120°F	120°F	120°F	120°F	120°F	
600 rpm reading	40	130	62	94	129	76	
300 rpm reading	40	81	68	53	79	44	
200 rpm reading	44	62	67	41	61	36	
100 rpm reading	46	41	72	25	39	25	
6 rpm reading	47	14	99	6	14	11	
3 rpm reading	15	13	23	4	13	11	
Plastic Viscosity, cP	0	49	-6	41	50	32	
Yield Point, lb./100 ft ²	40	32	74	12	29	12	
10 sec. gel, lb./100 ft ²	41	12	128	3	6	6	
10 min. gel, lb./100 ft ²	61	18	161	8	14	10	
API Fluid Loss, ml			84	5.5	3.5	16.4	
HTHP, 375°F, 500 psi, ml			N.C.	33.2	19.2	30	
HTHP, 400°F, 500 psi, ml	N.C.	20					

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