

ChemSol

DRILLING FLUID PRODUCTS

CHEM SPA (SODIUM POLYACRYLATE)

Comparison Test between CHEM SPA & Leading Filtrate Controller

Sample Origin

CHEM SPA: ChemSol

Product #1: Leading competitors product

Base Mud Preparation

Clay: Wyoming Bentonite

Clay Contents: 15g in 344ml distilled water is investigated.

Product Dosages: 1, 3, 6, and 10ppb are investigated.

Test Procedure: Available upon request.

Performance Test Results

1. Initial Mud System (Just after Mud is Prepared)

Product	Base Mud	CHEM SPA				Product #1			
		0	1	3	6	10	1	3	6
R600	7	24	45	76	105	30	72	116	172
R300	4	12.5	25.5	43.5	62	16.5	42	71	107
Gels 10s	0.5	0	1	2	4	2	4	6	8
Gels 10m	0.5	0.5	1.5	5.5	11	3	6	11	17
PH	7	8	8	9	9	8	8	8.5	8.5
Fluid Loss, ml	21.6	10.2	8.6	7.4	5.5	10.8	8.7	7.3	6.2
PV, cps	3	11.5	19.5	32.5	43	13.5	30	45	65
YP, lb/100ft ²	1	1	6	11	19	3	12	26	42

2. After Hot Rolling at 150°F for 16 hours.

Product	Base Mud	CHEM SPA				Product #1			
		0	1	3	6	10	1	3	6
R600	6	25	42	68	98.5	36	71	111	160
R300	3.5	13	23	36.5	56	21	41	65.5	97
Gels 10s	0.5	0	0.5	1.5	2.5	3	4	4	7
Gels 10m	0.5	0	1.0	2.0	4.0	3.5	5	7	8.5
PH	7.5	8.0	8.5	9	9.5	8	8.5	8.5	9
Fluid Loss, ml	19.6	10.2	8.2	7.6	6.4	9.8	9	7.8	6.3
PV, cps	2.5	12	19	31.5	42.5	15	30	45.5	63
YP, lb/100ft ²	1	1	4	5	13.5	6	11	20	34

ChemSol

Viscosity and Gelling Tendency of CHEM SPA vs. Leading Competitors Product in 10% Water Solution

Sample Origin

CHEM SPA: ChemSol

Product#1: Leading Competitors Product

Viscosity Measure by: Fann 35 VG and Brookfield Viscometer

Product	CHEM SPA	Product#1	Required Range
R600	220	>300	--
R300	117	182	--
R200	80	131	--
R100	41.5	75	--
R6	2.5	6	--
R3	1	4	--
Brookfield Viscosity (#3 Spindle, 20rpm, @25)	125	250	100-600
Color	Light Brownish	Cloudy	--
Gelling Tendency	No Gel	No Gel	--