

TNB 100 & PDS SUPER L

Lubricity Data

Comparative Lubricity Coefficient Values	
Water	0.35
Water Base Mud	0.25
Oil Base Mud	0.11

Calibration	DI Water	Torque
Correction Factor	0.8947	38

TNB 100 Lubricity in Various Substrates

(Fann Model 21200 EP/Lubricity Tester)

Torque (in/lbs)	150		200		250		300		350	
3% TNB by Weight in Brine	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient
2% KCl	1.0	0.0089	1.2	0.0107	1.8	0.0161	2.0	0.0179	3.0	0.0268
20% KCl	0.8	0.0072	1.4	0.0125	2.0	0.0179	2.8	0.0251	3.0	0.0268
2% CaCl ₂	1.2	0.0107	1.5	0.0134	1.8	0.0161	2.0	0.0179	2.8	0.0251
6% CaCl ₂	1.1	0.0098	1.5	0.0134	2.0	0.0179	2.2	0.0197	2.5	0.0224
2% MgCl ₂	1.2	0.0107	1.8	0.0161	2.2	0.0197	2.5	0.0251	4.5	0.0403
6% MgCl ₂	1.0	0.0089	1.8	0.0161	2.8	0.0251	4.5	0.0403	7.0	0.0626
10% Williston Field Brine	1.2	0.0107	1.8	0.0161	2.2	0.0197	2.9	0.0259	3.5	0.0313
PennZoil 10W/30	0.5	0.0045	1.0	0.0089	1.2	0.0107	2.5	0.0224	3.5	0.313

PDS Super L Lubricity in Various Substrates

(Fann Model 21200 EP/Lubricity Tester)

Torque (in/lbs)	150		200		250		300		350	
3% PDS by Weight in Brine	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient	Meter Reading	Lubricity Coefficient
2% KCl	1.5	0.0134	3.0	0.0068	4.0	0.0358	5.5	0.0492	8.0	0.0716
20% KCl	1.5	0.0134	2.0	0.0179	2.3	0.0224	3.0	0.0268	3.5	0.0313
2% CaCl ₂	1.2	0.0107	2.0	0.0179	2.8	0.0251	3.2	0.0286	4.5	0.0403
6% CaCl ₂	1.1	0.0098	2.0	0.0179	3.0	0.0268	4.0	0.0358	5.0	0.0447
2% MgCl ₂	1.2	0.0107	1.8	0.0161	2.5	0.0224	3.5	0.0313	6.0	0.0537
6% MgCl ₂	1.5	0.0134	2.0	0.0179	2.8	0.0251	3.2	0.0286	4.2	0.0376
10% Williston Field Brine	1.0	0.0089	1.8	0.0161	2.5	0.0224	3.5	0.0313	5.0	0.0447
PennZoil 10W/30	0.5	0.0045	1.0	0.0089	1.2	0.0107	2.5	0.0224	3.5	0.0313