

Wettability Tester Model C1001

Description

The Wettability Tester, Model C1001 is designed to evaluate the apparent wettability of spacer fluids, preflush fluids, and spacer and surfactant fluid combinations. This instrument consists of these items:

- Double-walled Stainless Steel Mixing Container
- Mixer Base
- Electronic Control Unit
- Variable Transformer

A harness connection provides power to the heater, thermocouples, and electrodes. This container can be used on most commercial blender bases. The electronic control unit contains the temperature controller, and wettability electronics.



Application

Normally, oil-external fluids are not electrically conductive, while water-based spacers are. Actual conductivity depends on the solution chemistry of the fluid. The Fann Wettability Test Apparatus measures both the surface-acting and electrical properties. The circuitry measures the electrical activity in the fluid and on the electrode surfaces and provides a continuous reading that reflects the apparent wettability.

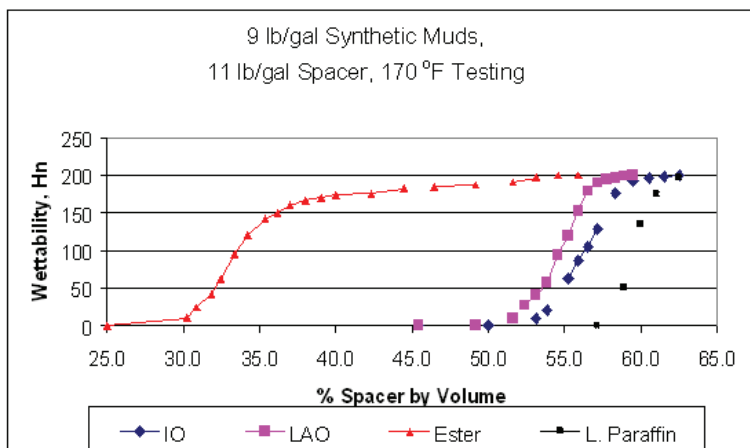
When the cup is empty, no electrical activity is present and the reading should be 0 Hn (Hogans, a dimensionless unit). When the cup is full of a stable, oil-external drilling fluid, the reading is 0 Hn. Once the external phase exhibits electrical activity, the meter will measure the apparent wettability.

This instrument conforms to the recommended procedure, API Recommended Practice 10B-2, Water-wetting Capability Testing, Method and Apparatus.

Advantages

The Wettability tester makes it possible to

- Test drilling fluid and spacer mixtures at controlled shear rates and temperatures up to 180°F (82°C)
- Custom design surfactant and spacer fluid combinations, resulting in optimal performance, efficiency, and cost-savings
- Compare different spacer and surfactant systems



This graph illustrates the wettability transition for synthetic drilling fluids (4) mixed with an aqueous spacer containing a popular surfactant package.

Specifications

- Power: 115V, 60 Hz
- Maximum Temperature: 180°F (82°C)
- Container Volume: 750 ml

Ordering Information

Part No. 203936— Wettability Tester, Model C1001

Included Items	Part No.
Mixing Container	203937
Blender Base, Single Speed	205633
Variable Transformer, 120V, 1.4 KVA	206536
Electronic Control Unit	203938
Control Cable Harness Assembly	203538

Fann Instrument Company offers a complete line of equipment, materials, and supplies for analyzing various drilling fluids and oil well cements in accordance with API Specifications and API Recommended Practices.