Test Foam Stability and Foamer Efficiency

with the

Foam Tester FOA

Characteristics

- Run pressurized foam tests to simulate high temperature field conditions
- Test foam stability and foamer efficiency
- Laboratory results correspond to field conditions
- Test defoamers in collapse tests
- Single or double tube setup with individual flow setting
- Based on ASTM D892 + pressure-options

The Foam Tester FOA is a laboratory device and examines foams with regard to foam generation, their stability and foam decomposition under pressure and for temperatures up to 150 °C. The device is designed for both water and hydrocarbon-based liquids such as condensates, crude oils, petroleum products and solvents. The Foam Tester can be used to develop foaming agents such as foam inhibitors or defoamers and evaluate their effectiveness under realistic conditions.

Laboratory results correspond to field conditions

In the laboratory, the Foam Tester reproduces the original process conditions so that the results obtained can be directly transferred to real field conditions. An optional camera system documents the entire test process with video and photo recordings, which significantly improves the traceability and analysis of the results.

Everything under control

The gas flow rate is controlled via software

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by an electronic flow controller. The pressure is controlled by a backpressure overflow valve and shown on an analog pressure gauge and in the software. The temperature is maintained and controlled via software in a special designed dry bath heating oven.

Different test modes

Carry-over test:

Depending on temperature, flow rate, pressure and pore size of the sparger disc a foam is continuously produced. The foam is carried out through an over flow tube. Optionally, the overflow tube can be upgraded with active cooling.

The weight of the discharged foam is continuously measured using a computer-controlled balance. All data is recorded continuously.

Foam collapse test:

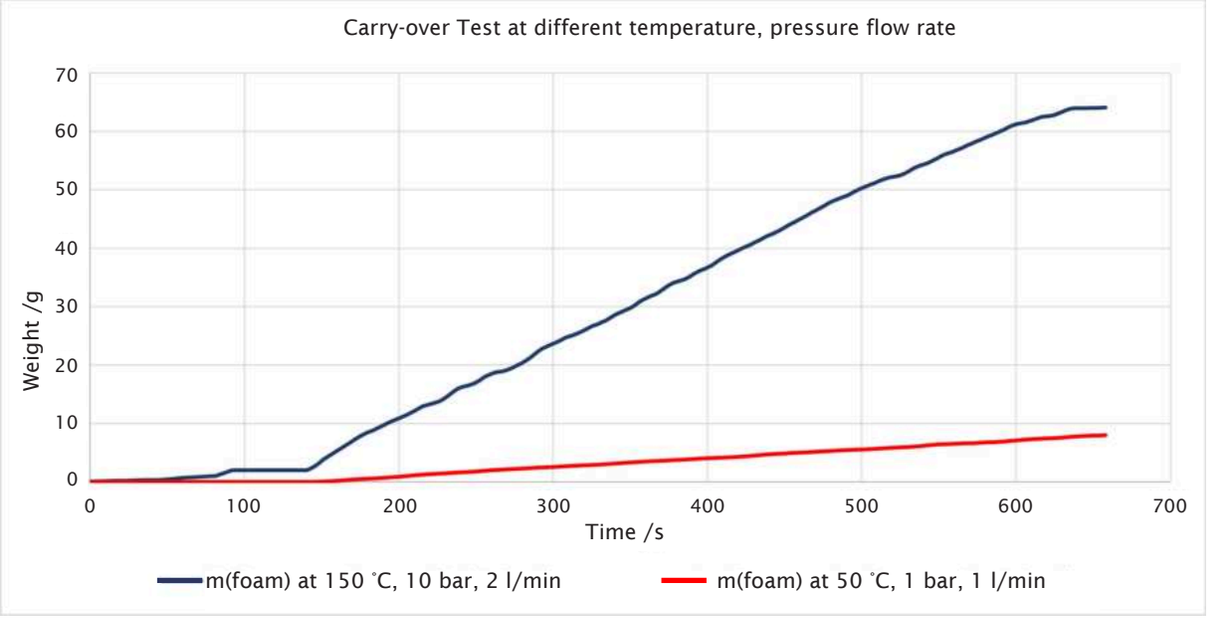
The time for decomposition of the produced foam is evaluated by optical examination.

Depending on temperature, flow rate, pressure and pore size of the sparger disc a specific amount of foam is produced. Additives can be added before or during the experiment manually. The gas supply is switched off and the speed of foam decomposition is determined by measuring the decreasing height of the foam over time.

Foam stability test:

The height of the produced foam is evaluated by optical examination.

Depending on temperature, flow rate, pressure and pore size of the sparger disc a specific amount of foam is produced. Additives can be added before or during the experiment manually. After a certain time the foam reaches an equilibrium of newly produced and decomposing foam. The height of the foam can be read off a scale on the test cell.



Specifications:

Temperature range:	Ambient .. +150 °C (+302 °F)
Pressure range:	Ambient .. 10 bar (145 psi)
Amount of test cells:	1 (Basic unit) or 2 (Extended unit)
Sample amount:	50 .. 200 ml (each cell)
Gas flow:	0.1 .. 5 l/min (standard) or 0.4 .. 20 l/min (optional)
Gas supply:	Pressurized air or nitrogen 2 .. 12 bar (29 .. 174 psi)
Power consumption:	max. 3,000 W
Voltage input:	230 V~
Weight:	Main unit with two test cells: 97 kg
Dimensions (WxDxH):	44 x 54 x 143 cm + PC, balance(s)

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