

SYROPERM - Permeameter to Gas

Release: November 2016

Description

The SYROPERM is an autonomous device for the fast and automatic determination of the stationary gas permeability on specimen plugs.

The SYROPERM captivates with its (1) simple specimen mounting into the integrated sample chamber, (2) accurate sensor technology encompassing a wide metering range, (3) easy to handle control system with the software package GLOW. The device measures fast and reproducibly the steady-state gas flow through the specimen.

The user-optimised GLOW software controls the entire testing procedure. Moreover, GLOW allows for permeability calculations as well as visualisation and documentation of the data.

Properties

- Optional manual or automatic determination of the "Klinkenberg permeability"
- Alternatively the real permeability can be calculated applying the empirical adjustment according to Rieckmann (1970)
- Various non-corrosive measuring gases can be applied
- An external core holder or triaxial cell etc. can be plugged
- The various mounting kits allow for a high flexibility in specimen dimensions

Literature

Rieckmann, M. (1970): Untersuchung von Turbulenzerscheinungen beim Fließen von Gasen durch Speichergesteine unter Berücksichtigung der Gleitströmung: Erdöl-Erdgas, 86, 36-51.



SYROPERM

Technical details

- Measuring ranges differential pressure:
0 - 100 mbar and 0 - 2 bar
- Absolute pressure at the outlet:
0 - 3 bar
- Measuring ranges flow:
0 - 20 sccm and 0 - 200 sccm
- Specimen diameter :
1", 28 mm, 30 mm, 1,5"
other dimensions on request
- Specimen height: max 76 mm
- Measuring gases : Helium and nitrogen, others on request
- Real gas calibration
- Measuring range of the permeability depends on the specimen dimensions, typically it ranges from 1 D to 10 μD (ca. 10^{-12} to 10^{-17} m²)

Software

- Optimised touch surface
- Graphical visualisation of the data
- Data export as txt or csv files for own purposes
- Units (metric or imperial) can be defined by the user
- Measurement gas choice via dropdown menu
- Selection of measurement type via touch screen

Options

- External devices (separate core holder, triaxial cell, pressure cell) can be hooked up
- Economic alternative: you can order your SYROPERM *without* internal sample chamber



GL TEST SYSTEMS
Hospitalstraße 13
37308 Heiligenstadt

User Name
GL-Tester

Sample Name
42GL

Sample Diameter
25.4 mm

Sample Length
50.8 mm

Comment

Data Viewer

Unit Settings

Save Path
C:\Users\user\Documents

Browse

Saving Period
5 s

Mode
Single Mode

Measurement Gas
Helium
intern/extern

Measurement
5

Start Measurement

Door opener

EXIT

sleeve pressure: 4.1 bar supply pressure: 8.0 bar Status OK