



Program details

ARTICLE NUMBER

ggu-04-020

OPERATING SYSTEM

Windows 2000/XP/Vista/7

Description

GGU-GRAIN-DENISTY – Evaluation and visualisation of tests to determine grain density using the German Standard DIN 18124 method with a capillary pycnometer (CP).

Capabilities:

- Input of max. 24 individual tests
- Table layout according to the number of tests
- Mean determination for each table
- User-designed output sheet
- Print or copy screen sections, e.g. for transfer to a word processor
- Integrated Mini-CAD system for additional annotation of graphics

The screenshot shows the GGU software interface with a data table and a 'Preferences' dialog box. The table contains the following data:

Pyknometer no.	82	83	100
Mass of pyknometer m_p [g]	43.720	43.286	43.300
Dry sample + pyknometer m_1 [g]	64.266	63.418	63.801
Sample + pyknometer + water m_2 [g]	155.742	155.102	155.326
Temperature of water T [°C]	24.500	24.400	24.400
Volume of pyknometer $V(pT)$ [cm ³]	99.965	99.974	100.004
Density of water at T $\rho_w(T)$ [g/cm ³]			
Mass of water $m_w(T)$ [g]			
Volume of water $V_w(T)$ [cm ³]			
Volume of grain V_k [cm ³]			
Dry sample m_d [g]			
Grain density ρ_{sd} [g/cm ³]	2.498	2.506	2.492
Mean [g/cm ³]		2.498	

The 'Preferences' dialog box shows the following settings:

- Tables: Text field width: 86.50
- No. of columns: 3
- No. of tables: 1

The screenshot shows the GGU software interface with a report form and a 'Test no. 1' dialog box. The report form contains the following information:

GGU mbH
Am Hafe 22
38112 Brattsekeweg

Report: 999.9
Annex: 9.9

Grain density to DIN 18124 - CP
Example
DIN 18124-CP
Edited by: BFK Date: 25.09.2009

Sampling location: KR 99
Depth: 0.99 m
Sampling method: Disturbed
Soil type: Sand, silty
Sample taken on: 14.09.2009

The 'Test no. 1' dialog box shows the following data:

- Test no. 1
- Sample designation: 1
- Pyknometer no.: 100
- Mass of pyknometer m_p [g]: 51.838
- Dry sample + pyknometer m_1 [g]: 71.462
- Sample + pyknometer + water m_2 [g]: 163.901
- Temperature of water T [°C]: 21.000
- Volume of pyknometer $V(pT)$ [cm³]: 100.016

The table below the dialog box shows the following data:

Volume of pyknometer $V(pT)$ [cm ³]	100.016
Density of water at T $\rho_w(T)$ [g/cm ³]	0.99802

GGU mbH Am Hafen 22 38112 Braunschweig		Report: 999.9 Annex: 9.9																										
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