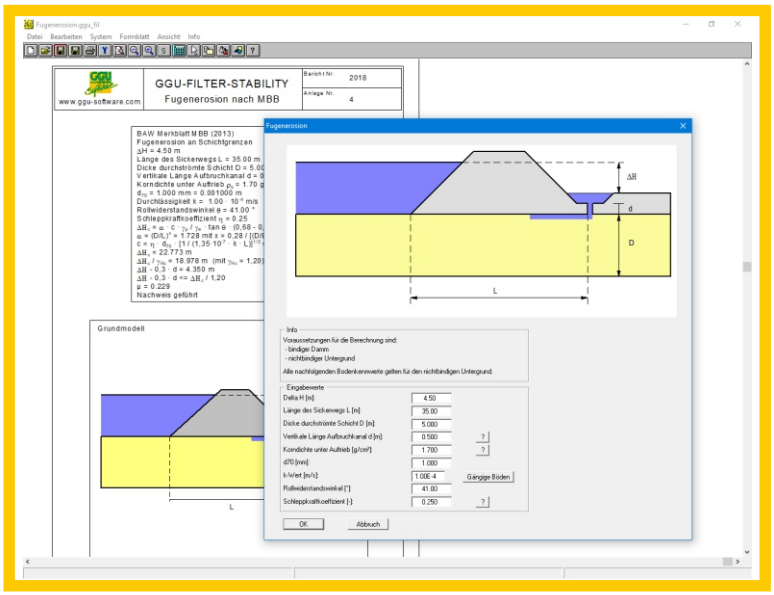
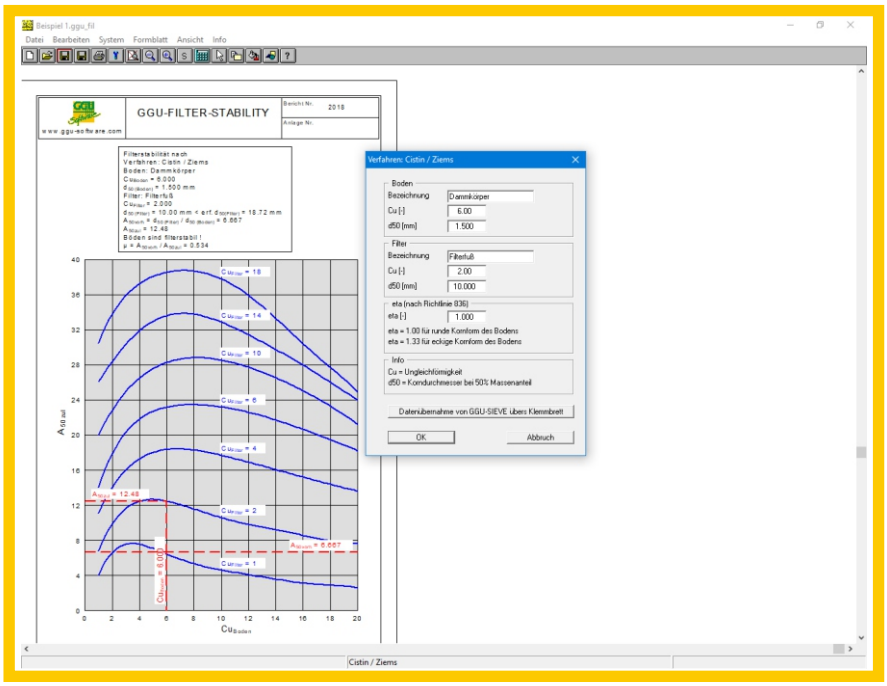
Program details

ARTICLE NUMBER
ggu-01-119

OPERATING SYSTEM
Windows 7/8/10

ONLY AVAILABLE IN GERMAN LANGUAGE.





Description

GGU-FILTER-STABILITY *– Analysis of material transport in non-cohesive soils using the following methods:*

- *filter stability after Cistin/Ziems;*
- *suffosion safety after Kenney/Lau;*
- *suffosion safety after Burenkova;*
- *interface erosion at layer boundaries compliant with TAW;*

described in Code of Practice "Material Transport in the Soil" (German: "Merkblatt Materialtransport im Boden (MMB)", published by Bundesanstalt für Wasserbau (BAW) in Karlsruhe, 2013)

and
- *filter stability of geotextile filters;*

described in DWA-M511 Code of Practice "Filters using geosynthetics", (German: "Filtern mit Geokunststoffen", 2015).

Capabilities:
- *Manual system data input or data import from the GGU-SIEVE program (determination and presentation of grain size distribution curves, Version 14 and upwards)*
- *In interface erosion at layer boundaries, permeabilities for common soils can be selected from expandable databases*
- *Consideration of soil grain shape compliant with DB guideline 836 (module 836.4602A01: "Tiefenentwässerungen, Nachweise der Filterstabilität von Filtern/Dräns" (Deep drainage, analysis of the filter stability of filters/drains), 1st revision, 01 October 2008)*
- *Visualisation of the allowable interval ratio between the filter and the protected soil as a function of their uniformity coefficients in the Cistin/Ziems diagram*
- *Design of geotextiles and search for optimal product following analysis of the filter stability of geotextile filters compliant with the DWA-M511 Code of Practice*
- *Visualisation of suffosion saftey after Kenney/Lau or Burenkova*
- *Visualisation of interface erosion at layer boundaries in a model compliant with TAW*
- *Input data and analysis results displayed in a legend*
- *Examples from DB guideline 836 and Merkblatt Anwendung von Kornfiltern an Wasserstraßen (MAK) published by Bundesanstalt für Wasserbau (BAW) in Karlsruhe*
- *User-defined design of output sheet*
- *Print or copy screen sections, e.g. for transfer to a word processor*
- *Integrated Mini-CAD system for additional annotation of graphics*

PROGRAM GGU-FILTER-STABILITY
GEOTECHNICAL ANALYSIS

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www.ggu-software.com	GGU-FILTER-STABILITY BAW - Beispiel 2	Bericht Nr. 2018 Anlage Nr. 1.2

BAW - Beispiel 2
Filterstabilität nach
Verfahren: Cistin / Ziems
Cu_{Boden} = 5.000
$d_{50\ (Boden)}$ = 16.00 mm
Cu_{Filter} = 1.700
$d_{50\ (Filter)}$ = 170.0 mm < erf. $d_{50(Filter)}$ = 175.8 mm
$A_{50vorh} = d_{50\ (Filter)} / d_{50\ (Boden)}$ = 10.63
A_{50zul} = 10.99
Böden sind filterstabil !
$\mu = A_{50vorh} / A_{50zul}$ = 0.967