Tests in general

Our high-performance testing laboratory, which regularly carries out tests on RSS Flüssigboden, guarantees the use of quality-controlled additives. We only use Compound types with suitable and tested properties. In addition to high quality testing, our focus is on mix design development, consulting and product development. We also offer supervision services in the area of RSS Flüssigboden at the highest level

Test scope

- unconfined compressive stress measured at the respective test force
- unconfined compressive strength qu as maximum compressive stress
- unconfined E-modulus Eu as the maximum slope of the tangent of the stress– strain curve
- EU30 as 30% of the strain at failure
- EU50 as 50 % of the strain at failure

0,14 0,12 0,00 0,00 0,00 1,00% 2,00% 3,00% 4,00% 5,00% Stauchung c [%]

Key data

- Device designations:
 ELS 25 Universal testing machine
 ELS 50 Universal testing machine
- maximum load: 50 kN pressure
 Drive system: electromechanical
- Typical values for optimized liquid soils: qu 0.08-0.3 N/mm2 depending on mix design/soil
- high measuring accuracy due to suitable force measuring rings
- high reproducibility









Soil mechanical parameters based on DIN 18136 (UCS)

The soil mechanical parameters are measured at a constant deformation rate of 0.2 % of the initial height per minute. The used devices are universal testing machines UP25/UP50 with force measuring rings from 5 to 50 kN.

Deviations from DIN 18136

- Deviating from the requirements of the DIN, section 6.1 "Shape and dim."
 Their height should be 2 to 2.5 times the diameter or edge length.
 Derogations must be indicated and justified
 the indicated measures of the utilized samples were chosen.
- Deviating from the requirements of the DIN, section 9 "Specification of the results"

.....

- b) Soil type according to DIN 4022-1
- c) quality class of the sample according to DIN 4021

soil type: not defined for Flüssigboden quality classes: no sample collection but sample production

Typical Tests

We usually test cylindrical liquid soil test specimens measuring $12~\rm cm~x~9.6~cm$. These test specimens are produced in the course of a mix design development or during a monitoring operation. The usual temperature ranges of the specimen storage are room temperature or $10~\rm ^{\circ}C$. During storage, the test specimens are tightly sealed with standard covers.



Costs Testing unconfined compressive strength on RSS Flüssigboden®

- per test specimen €37,36
- including disposal of contaminated source material up to LAGA Z2
- including storage at room temperature up to the time of testing

You will find our current price list on our website.

FiFB Forschungsinstitut für Flüssigboden GmbH Wurzner Straße 139 D-04318 Leipzig Tel +49(0)341-24469-21
Fax +49(0)3423-72424-74
E-Mail j.detjens@fi-fb.de
Internet www.fi-fb.de