

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.

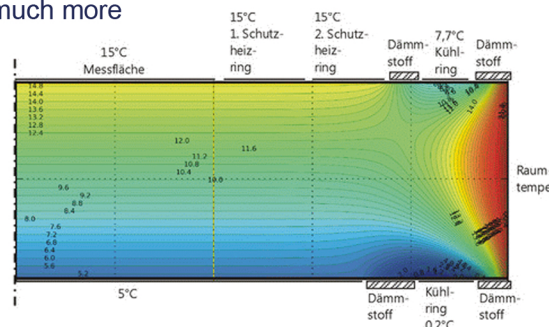
Thermal conductivity (λ value)

The measurement of thermal conductivity requires particularly high quality of the test specimens and the measuring instruments. We always test the thermal conductivity with stationary plate instruments according to EN 12667 and EN 12664 article 9.



Advantages of a plate instrument compared to transient instruments

- direct measurement
 - thus higher accuracy and reproducibility
 - more sample material within the measuring zone (larger measuring area) ? better significance or consideration of raw density fluctuations, thus inhomogeneities, moisture conditions, etc.
 - Change of the contact pressure and thus also of the contact resistance between sample and instrument as criterion of the heat transfer resistance.
 - Temperature field as result of an adjustable equilibrium state in the material sample. Thus illustrating the placement condition at the pipe well.
 - Standard conformity, eg EN 12664, EN 12667, and ISO 8302, ASTM C177, EN 1946-2, EN 12939, or DIN 52612 (guarded hot plate method).
 - and much more



with heat flow $= \lambda \times A \times (T_1 - T_2) / d$

Typical Tests

We usually test liquid soil test specimens measuring 15 cm x 15 cm x 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 measurements are 10°C, 25°C, and 50°C.



Key data

- Device designation: λ -Meter EP500e
- Measuring range λ : 0.002-3.0 W/(mK)
- Typical values of optimized liquid soil: 0.8-2.0 W/(mK), depending on the mix design/source soil
- Selectable measuring temperatures: -10 to +50°C, in 1 K steps
- High measuring accuracy: 1 % deviations
- High reproducibility: 0.5 % deviations
- Direct measurement of thermal conductivity on the test specimen

Costs Lambda value test for RSS Flüssigboden®

- As part of a mix design development: from €1200
- Single test (depending on temperature) from €770 to €930 plus sample preparation

You will find our current price list on our website. Please also refer to our product information sheet "RSS Mix Design TS "



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