Determination of water absorption

Objective



This method is used to evaluate water absorption and desorption for insoles and insocks. This information is particularly important for hygienic comfort. Absorption quantifies the ability to “keep the foot dry”, while desorption checks whether water absorbed will be salted-out at a sufficient rate to avoid promoting the spread of bacteria.

Principle

The test consists of reproducing the stresses to which the insole is subjected on the foot: pressure, flexing and wet contact. We then measure the maximum quantity of water absorbable by the material. For desorption, the specimen is dried in the open air for a specific time, and then weighed. The result corresponds to the water absorption at saturation expressed in mg/ cm²*, and the water desorption expressed as a percentage.

* Milligram per cm².

Type: Physical and mechanical test
Standard: EN ISO 22649
Product: Footwear
Criteria: Comfort
Component: Insoles seat socks

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