Water absorption / desorption

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 in reproducing the stresses experienced by an insole during wear: pressure, bending and wet contact. We then measure the maximum amount of water that can be absorbed by the material.
For desorption, the specimen is air-dried for 24 hours and then weighed.
The result is water absorption at saturation expressed in mg/cm² and water desorption expressed as a percentage.

Type: Physical and mechanical test
Standards: EN ISO 20344 §7.2 / EN ISO 20345 §5.7.3
Product: Footwear
Criterias: Mechanical risk / PEE
Components: Insoles seat socks / Mounting plate

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