



Water penetration and absorption (WPA)

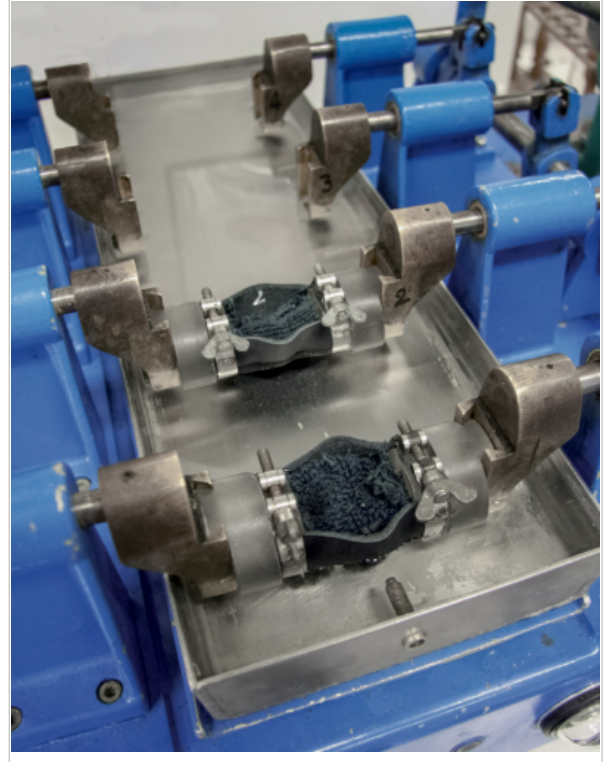
Objective

This test is used to measure the water resistance of upper material. It evaluates both the water penetration time and the quantity potentially absorbed.

Principle

The test consists in determining the water penetration and water diffusion through a material sampled from the upper, by partially immersing a semi-cylindrical specimen. The specimen is subjected to cyclic compressions to simulate the stresses in use (pumping effect).

The results cover the material penetration time (expressed in minutes), the water absorption of the material (expressed as a percentage) and the quantity of water transferred (expressed in g).



Type: [Physical and mechanical test](#)

Standards: [EN ISO 20344 §6.13](#) / [EN ISO 20345 §6.3](#)

Product: [Footwear](#)

Criteria: [Mechanical risk](#) / [PEE](#)

Component: [Upper](#)

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