

Moisture Measurement in Walls Using Microwaves

F. Menke, R. Knochel, T. Boltze, C. Hauenschild and W. Leschnik. "Moisture Measurement in Walls Using Microwaves." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1147-1150.

A novel measurement procedure and set-up is presented, which is suitable for moisture measurements in brick- and stone walls at places, where the wall is accessible only from one side. Local dielectric constant and hence spatial moisture content profile are determined by tracing the complex electric field using an electrically small field probe, which intrudes and is moved in a small bore-hole. Only one hole with a diameter of 8-15mm is needed. A prototype set-up and measurements are presented in order to demonstrate the practicability of the method.

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