



Designation: C 1114 – 9800

Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Thin-Heater Apparatus¹

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1. Scope

1.1 This test method covers the determination of the steady-state thermal transmission properties of flat-slab specimens of thermal insulation using a thin heater of uniform power density having low lateral heat flow. A thin heater with low lateral thermal conductance can reduce unwanted lateral heat flow and avoid the need for active-edge guarding.

1.2 This primary test method of thermal-transmission measurement describes a principle, rather than a particular apparatus. The principle involves determination of the thermal flux across a specimen of known thickness and the temperatures of the hot and cold faces of the specimen.

1.3 Considerable latitude is given to the designer of the apparatus in this test method; since a variety of designs is possible, a procedure for qualifying an apparatus is given in 5.3.

¹ This test method is under the jurisdiction of ASTM Committee C-16 on Thermal Insulation and is the direct responsibility of Subcommittee C16.30 on Thermal Measurement.

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