



Assessment of Uncertainties for the NIST 1016 mm Guarded-Hot-Plate Apparatus Extended Analysis for Low-Density Fibrous-Glass Thermal Insulation

By Robert R. Zarr

CreateSpace Independent Publishing Platform. Paperback. Condition: New. This item is printed on demand. 56 pages. Dimensions: 11.0in. x 8.5in. x 0.1in. An assessment of uncertainties for the National Institute of Standards and Technology (NIST) 1016 mm Guarded-Hot-Plate apparatus is presented. The uncertainties are reported in a format consistent with current NIST policy on the expression of measurement uncertainty. The report describes a procedure for determination of component uncertainties for thermal conductivity and thermal resistance for the apparatus under operation in either the double-sided or single-sided mode of operation. An extensive example for computation of uncertainties for the single-sided mode of operation is provided for a low-density fibrous-glass blanket thermal insulation. For this material, the relative expanded uncertainty for thermal resistance increases from 1 for a thickness of 25.4 mm to 3 for a thickness of 228.6 mm. Although these uncertainties have been developed for a particular insulation material, the procedure and, to a lesser extent, the results are applicable to other insulation materials measured at a mean temperature close to 297 K (23.9 DGC, 75 OF). The analysis identifies dominant components of uncertainty and, thus, potential areas for future improvement in the measurement process. For the NIST 1016...



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This publication is amazing. It is definitely basic but shocks in the fifty percent of your publication. You won't feel monotony at anytime of your own time (that's what catalogues are for concerning if you question me).

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