U. S. Department of Commerce
Malcolm Baldrige
Secretary
National Bureau of Standards
Ernest Ambler, Director

National Bureau of Standards

Certificate

Standard Reference Material 1012

Flooring Radiant Panel

This Standard Reference Material (SRM) consists of three sheets of kraft paperboard 104.1 cm long, by 25.4 cm wide, and 3.05 mm thick. It is intended primarily for use in checking the operation of flooring radiant panel test apparatus used to measure critical radiant flux. Use of this SRM does not obviate the need for following the prescribed calibration and standardization techniques outlined in the American Society for Testing and Materials (ASTM) Standard Test Procedure E648-78.

The certified value for average critical radiant flux is:

$$CRF = 0.36 \pm 0.04 \ W \cdot cm^{-2}$$

This mean value is the result of tests on 31 randomly selected samples for a lot of 500 sheets of kraft paperboard. The associated uncertainty is the standard deviation based on these measurements. The critical radiant flux measurements were made in accordance with the detailed procedures presented in ASTM Standard E648-78, "Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source," and in National Fire Protection Association (NFPA) 253-1978, "Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source."

NOTE: Prior to test, the material must be conditioned to equilibrium at 23 ± 3 °C and 50 ± 5 percent relative humidity. The material is certified for use without regard to orientation of surface; i.e., either the obverse or reverse may be placed on the substrate.

Storage: This material should be stored flat in the hermetically sealed aluminized plastic sleeve until removed for conditioning. Sheets not intended for immediate conditioning should be resealed in the sleeve to avoid possible contamination or degradation.

Engineering testing and analysis leading to the certification of this Standard Reference Material were performed by J.R. Lawson and J. Poole of the Center for Fire Research.

The support aspects involved in the certification and issuance of this Standard Reference Material were coordinated through the Office of Standard Reference Materials by R.W. Seward.

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Gaithersburg, MD 20899

Stanley D. Rasberry, Chief
Office of Standard Reference Materials