

National Bureau of Standards Certificate

Standard Reference Material 1006

Smoke Density Chamber Standard

Non-flaming Exposure Condition

This Standard Reference Material is recommended for checking the operation of the Smoke-Density Chamber under non-flaming exposure conditions. However, it does not obviate the need for following the prescribed calibration and standardization techniques outlined in the test procedure.

The certified value for maximum specific optical density is:

$$D_m(\text{corr.}) = 170 \pm 8$$

The value for $D_m(\text{corr.})$ is the mean value of 30 tests determined on representative samples of a lot of 0.030 inch (0.76 mm) thick cotton-linter paper (principally α -cellulose). The estimate of precision is the standard deviation of the 30 measurements. The window deposit correction (D_c) was 2 ± 1 . Smoke density measurements were made under non-flaming exposure conditions in accordance with the detailed procedures outlined in "Test Method for Measuring the Smoke Generation Characteristics of Solid Materials."*

NOTE: Prior to test, the material must be dried for 24 hours at 60 °C and then conditioned to equilibrium at 23 ± 3 °C and 50 ± 5 percent relative humidity.

Engineering testing leading to the certification of this Standard Reference Material was performed by T. G. Lee of the Fire Research Section, NBS Building Research Division, using a commercially available Smoke Density Chamber.

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*Copies are available from the Fire Research Section, Room B66, Technology Building, National Bureau of Standards, Washington, D. C. 20234