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BRITISH STANDARD

METHOD

(A.R.P. SERIES)

FOR

TESTING INCOMBUSTIBLE MATERIAL RESISTANT TO INCENDIARY BOMBS.

This Specification forms one of a series of Standards prepared by the B.S.I. at the request of the Air Raid Precautions Department of the Ministry of Home Security. It is based on the test which has been carried out by the Fire Offices' Committee in conjunction with the Department of Scientific and Industrial Research (Building Research Station) at the Fire Offices' Committee Testing Station at Elstree.

Manufacturers may, if they so desire, have their material tested at Elstree, and particulars may be obtained on application direct to the Fire Offices' Committee, Testing Station, Boreham Wood, Elstree, Herts.

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1. **Scope.** The test laid down in this Specification is intended for the examination of coherent materials in the form of sheets, boards or slabs, either precast or formed in situ. It was not designed for testing granular or non-coherent materials; it may, however, be used for the purpose of obtaining information on the behaviour of such materials under certain conditions.

2. **Description.** The method for testing the resistance of incombustible material to incendiary bombs consists essentially of igniting a one kilo magnesium thermite bomb on a specimen of the material 2 feet square in the manner described below. The test is intended only to assess the resistance of a material to the burning of an incendiary bomb. The penetration due to impact does not come within the scope of this test.

3. **Apparatus.** The apparatus required for the test shall be as follows:—

(*a*) A stand of non-combustible material on which the specimen to be tested is supported at four points as shown in Fig. 1. Means shall be provided so that there is a free air space of 9 inches on the underside of the specimen being tested or of its timber support when this is used.

(*b*) A least three thermocouples for measuring the temperature. Each thermocouple shall be secured to a 1 inch diameter copper disc.

(*c*) An iron or steel ring 12 inches in internal diameter not less than 3/16 inches thick and 1 inch high, for the purpose of retaining the molten metal of the bomb.

(*d*) A one kilo magnesium thermite bomb, special test pattern, current Home Office specification (*see* Fig. 1).

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