IEC 60695-11-3 Figure 2 Copper Block

10g Copper Block for 500W Flame Calibration

Standard: IEC 60695-11-3 Figure 2 (500W Flame Test Apparatus)
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1. Product Overview

The KingPo IEC 60695-11-3 Figure 2 Copper Block is a precision reference component used in 500W flame test apparatus for flame calibration and verification. Manufactured from high-conductivity electrolytic copper (Cu-ETP) with a precise mass of 10 g ± 0.05 g, it provides consistent thermal response essential for accurate flame condition verification.

This block serves as a calibrated thermal reference during the flame verification procedure. Its tight mass tolerance, high thermal conductivity, and dimensional consistency ensure reliable and repeatable flame calibration results in accordance with IEC 60695-11-3 requirements.

2. Applicable Standards

- **IEC 60695-11-3 Figure 2** — Fire hazard testing – Part 11-3: Test flames – 500 W flames – Apparatus (Copper block for flame verification)

3. Purpose

In the IEC 60695-11-3 500 W flame verification procedure, the copper block acts as a calibrated thermal reference. The flame is applied to the copper block under specified conditions, and the resulting temperature rise is used to evaluate whether the flame output meets the requirements of the standard.

The block's mass, material purity, surface condition, and positioning must remain consistent to ensure accurate heat absorption and reliable flame verification across different operators, instruments, and test batches.

4. Key Features

- **Precision Mass Control** — 10 g ± 0.05 g (before drilling) with tight tolerance for reliable thermal consistency.
- **High-Conductivity Electrolytic Copper** — Cu-ETP material ensures excellent thermal conductivity and stable heat absorption.
- **Standard Compliance** — Manufactured according to IEC 60695-11-3 Figure 2 dimensional and material requirements.
- **Durable Construction** — Solid copper withstands repeated high-temperature flame exposure while maintaining performance.
- **Factory Inspected** — Mass accuracy verified before delivery; suitable for long-term laboratory use with proper care.

5. Technical Specifications

Parameter	Specification	Notes
Applicable Standard	IEC 60695-11-3 Figure 2	500W test flame apparatus
Material	High conductivity electrolytic copper (Cu-ETP)	Excellent thermal conductivity
Weight (Mass)	10 g ± 0.05 g	Before drilling; critical for thermal consistency
Mass Tolerance	±0.05 g	Tight tolerance for reliable verification
General Tolerance	±0.1 mm (unless otherwise stated)	Per standard requirements
Application	Flame calibration in 500W test flame apparatus	Used as thermal reference

6. Typical Use Procedure

1. Handle the copper block with clean gloves to prevent contamination.
2. Position the block correctly in the test apparatus according to the standard procedure.
3. Apply the flame under the specified conditions and record the temperature rise.
4. Compare the temperature rise against the acceptance criteria in IEC 60695-11-3.

5. After use, clean and inspect the block; store in a clean, dry environment.

7. Applications

- Flammability Testing Laboratories — Verification of 500W test flame conditions
- Material Testing Centers — Standardized flame testing according to IEC 60695-11-3
- Product Safety Certification Bodies — Compliance testing and flame apparatus calibration
- Research Institutions — Material combustion and flame behavior studies
- Quality Control Departments — Routine verification of flame test equipment

8. Standard Configuration

The standard configuration includes:

- Precision-machined high-purity electrolytic copper (Cu-ETP) block
- Mass controlled to 10 g ± 0.05 g (before drilling)
- Inspected for mass accuracy before delivery

Note: Regular verification of mass and surface condition is recommended during use.

9. Ordering Information

Please confirm the following when requesting a quotation:

- Quantity required
- Whether third-party calibration or mass verification certificate is needed
- Any specific handling or storage requirements

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