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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 13794-2017

Replacing GB/T 13794-2008

Pyrometric reference cones

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(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 13794-2008 "standard temperature cone." Compared with GB/T 13794-2008, the main technical changes are as follows.

- Increasing the definition of the guide edge (see 3.3);
- Increasing the size and angle of temperature cones for laboratory temperature cones and industrial furnaces (see Table 4.1);
- Modify the standard temperature cone schematic (see Figure 1, see 2008 Figure 1);
- Increased temperature cone bent down diagram (see Figure 2);
- Increased temperature cone installation (see 4.2).

This standard uses the redrafted law to amend the use of ISO 1146:1988 "Laboratory standard temperature cones - technical conditions." this standard and ISO 1146:1988 technical differences are as follows.

- Modify the use of international standards GB/T 7322 instead of ISO 528 easy to use;
- Increasing the definition of the guide edge, easy to use;
- Modify the standard laboratory temperature cone size, suitable for China's national conditions, easy to use;
- Increase the industrial furnace with a standard temperature cone of the relevant technical conditions, ISO standard only for laboratory temperature cone, the standard Industrial furnace with standard temperature cones and laboratory standard temperature cones merge, easy to use.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This standard by the National Refractory Standardization Technical Committee (SAC/TC193) and focal point.

This standard was drafted unit. Zhejiang Yuqing Thermal Technology Co., Ltd., Donghua University, Ruitai Technology Co., Ltd..

1 Scope

This standard specifies the terms and definitions of temperature cones, size and shape and installation, standard temperature, heating rate, bending temperature test and marking.

This standard applies to the laboratory standard temperature cone series (temperature range of 1500 °C ~ 1800 °C) and industrial furnace temperature cone Column (temperature range of 1220 °C ~ 1580 °C), respectively, for the determination of fire resistance and refractory materials with temperature cones, in the display and calibration of industrial furnace heating temperature.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 7322 refractory test method (GB/T 7322-2007, ISO 528:1983, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

Standard temperature cone pyrometricreferencecone A truncated oblique triangular pyramid having a prescribed shape, size and composition, when fitted and heated under specified conditions, Formula at the required temperature to fall.

Standard temperature referencetemperature Bend temperature temperatureofcolape when the standard temperature cone inserted in the frustum conical, heated at the required rate of heating under the conditions specified, the top of the cone bent down to the conical surface temperature.

Guiding edge Thermometer cone bending towards the heating of a corner, but also the shortest temperature cone in a corner.

4.1 Size and shape

The size and shape of the cone are shown in Table 1 and Figure 1, respectively.

Table 1 Laboratory temperature cone and industrial furnace temperature cone size and angle

Cone category I1/mm I2/mm I3/mm theta/° Laboratory temperature cone 2.0 7.5 30 82
Temperature Measuring Cone for Industrial Furnaces