

JIS

JAPANESE INDUSTRIAL STANDARD

**Method of temperature
measurement by
liquid-in-glass thermometers**

JIS Z 8705^{—1992}

JIS Z 8705:1992 has been revised under date of February 20, 2006. The revised items are included in Amendment 1.

Translated and Published

by

Japanese Standards Association

**In the event of any doubt arising,
the original Standard in Japanese is to be final authority.**

1. Scope

This Japanese Industrial Standard specifies the general methods in the case where temperatures are measured by the liquid-in-glass thermometers, hereinafter referred to as the "thermometers", in the mining and manufacturing industry.

Remarks 1. The standards applicable to this standard shall be as follows.

JIS B 7411-Etched-Stem Liquid-in-Glass Thermometers, Total Immersion Type

JIS B 7412-Enclosed-Scale Mercury-in-Glass Thermometers

JIS B 7413-Etched-Stem Mercury-in-Glass Thermometers
(Partial Immersion Type)

JIS B 7527-Thermometers with Wooden Plates

2. The units and numerical values given in { } in this standard are based on the traditional units and are appended for informative reference.

2. Definition

The definition of main terms used in this standard shall be as follows.

- (1) temperature sensitive liquid The liquid sealed in the bulb of the thermometer which indicates a temperature in the capillary tube, due to the degree of expansion corresponding to the temperature.
- (2) immersion It indicates the condition when the thermometer is being maintained at a measuring temperature. The total immersion means that the temperature-sensitive liquid column is maintained at the measuring temperature up to the top, and the partial immersion means that a part of the temperature-sensitive liquid column is maintained at the measuring temperature.
- (3) immersion line The line marked on the thermometer for the purpose of indicating the part to be maintained at the measuring temperature.
- (4) instrumental error In the case where it has been used properly, the value subtracted of the true temperature from the reading of the thermometer.
- (5) correction In order to obtain the temperature nearer to the true one, a procedure to add a certain value to the reading of the thermometer, or its value.