Calibration Register - Thermometers

Required Accuracy

Thermometers are used for measuring temperature, most frequently for the temperature of water used for personal hygiene. As the performance measure is protection from injury for users exposed to the hot water, it is important that the water temperature measured by the thermometer is close to the actual temperature, but accuracy of within 1^{o} C is not necessary as the tempering valves and other appliances used for setting the hot water temperature typically operate within 3^{o} of the set point, and this variation may be wider when pressure fluctuations occur. A required accuracy of 3^{o} C has been determined to be reasonable, allowing cheaper and more robust thermometers to be used while still providing good assurance that users of the building will be protected from injury caused by the water temperature. A calibration frequency of at least annually has been selected, as in the absence of physical damage it is not expected that thermometers will deviate by more than 3^{o} from calibrated temperatures over this time. If results outside this range are obtained during comparison testing, the thermometer will be tested using an ice/water slurry and boiling water as reference points, and the appropriate corrections to the thermometer readings attached to the thermometer. As an alternative, electronic thermometers may be sent to a service agent for recalibration.

Calibration Procedure

Thermometers shall be checked at room temperature by comparison with either a thermometer calibrated within the previous year by a service agent, or a thermometer with accuracy checked as above. Results of within 3^{o} C of the reference thermometer are acceptable.

Device type and identification	Calibrated by	Date last calibrated	Date of calibration	Date of next calibration	Actual reading	Comments