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PUBLIC NOTICE

As the authority with substantive and territorial jurisdiction in the matter of laying down metrological and technical requirements for specified measuring instruments and stipulating test methods for type approval, verification and re-testing of specified measuring instruments pursuant to § 14(1) of Act No 505/1990, on metrology, as amended (hereinafter the 'Metrology Act'), and in accordance with the provisions of § 172 et seq. of Act No 500/2004, the Code of Administrative Procedure , as amended (hereinafter the 'CAP'), the Czech Metrology Institute (hereinafter the 'CMI') commenced ex officio proceedings on 30 April 2024 pursuant to § 46 of the CAP, and, based on supporting documents, issues the following:

I.

MEASURE OF A GENERAL NATURE

number: 0111-OOP-C026-26

laying down metrological and technical requirements for specified measuring instruments, including test methods for type approval, verification and re-testing of specified measuring instruments:

'thermometers used by inspection authorities for temperature checks stipulated by legislation on foodstuffs and foods'

1 Definitions

For the purposes of this Measure of a General Nature, the terms and definitions pursuant to VIM and VIML[1] and the following shall apply:

1.1
thermometer for checking food temperature

thermometer used by inspection authorities for measuring the internal temperature of food (hereinafter also referred to as 'thermometer')

1.2

[1] TNI 01 0115 International Vocabulary of Metrology – Basic and General Concepts and Associated Terms (VIM) and International Vocabulary of Terms in Legal Metrology (VIML) are part of the technical harmonisation compendium 'Terminology in the field of metrology', which is publicly accessible at www.unmz.gov.cz.

temperature sensor

an element of a measuring instrument or measuring chain that is directly affected by temperature

1.3

penetration sensor for internal temperature measurement

temperature sensor for measuring the internal temperature of food

1.4

frozen food

food that has undergone a freezing process specifically designed to preserve the wholesomeness and quality of the product

1.5

response time τ_{90}

the time between the instant at which the input temperature value is subjected to a sudden step change between two specified constant temperature values and the instant at which the corresponding indication reaches 90 % of its final steady-state value

1.6

minimum immersion depth of the temperature sensor

the depth to which the sensor is immersed in a thermostatic bath at a temperature of (−20 ± 2) °C, with an ambient temperature of (23 ± 3) °C, at which further immersion changes the thermometer indication by less than 0.1 °C

1.7

measurement error

measurement result minus the true value of the measurand

1.8

maximum permissible measurement error

maximum permissible error; extreme value of measurement error, with respect to a known reference quantity value, permitted by specifications or regulations for a given measurement, measuring instrument or measuring system

1.9

rated operating conditions

operating conditions that must be fulfilled during measurement in order for a measuring instrument or measuring system to perform as designed

1.10

limiting operating conditions

extreme operating conditions that a measuring instrument or measuring system is required to withstand without damage, and without degradation of specified metrological characteristics, when it is subsequently operated under rated operating conditions

1.11

reference operating conditions

operating conditions prescribed for functional tests of the performance of a measuring instrument or measuring system or for comparison of measurement results

2 Metrological requirements

Verification of measuring instruments shall be subject to metrological requirements applicable at the time they were put into circulation.

2.1 Environmental conditions

Thermometers must comply with the metrological requirements over the ambient temperature range specified by the manufacturer, but at least over the range of (−20 to 50) °C.

The limiting operating conditions for these thermometers shall cover at least the range (−30 to 50) °C.

The storage and transport conditions for these thermometers shall cover at least the range (−30 to 70) °C.

The reference ambient temperature for testing thermometers shall be (23 ± 3) °C.

The reference ambient relative humidity for testing thermometers shall be less than 80 % RH.

2.2 Measuring range

The measuring range for measuring the internal temperature of food shall be at least (−20 to 190) °C.

2.3 Maximum permissible error

The maximum permissible error of a thermometer for measuring the internal temperature of food at a reference ambient temperature of (23 ± 3) °C must be ±0.5 °C over the range (−20 to 85) °C inclusive and ±1.5 °C over the range (above 85 to 190) °C.

2.4 Response time

The response time of the thermometer τ_{90} must be less than 2 min.

3 Technical requirements

Verification of measuring instruments shall be subject to technical requirements applicable at the time they were put into circulation.

3.1 General

Thermometers for checking food temperature may be compact or comprise structurally separate parts. The design of the thermometer shall allow it to be verified as a whole.

All components of a thermometer for checking food temperature must be manufactured in such a way as to ensure the stability of its metrological properties and reliable operation over the long term.

The materials used for structural components must be able to withstand the various forms of corrosion and wear that occur under normal operating conditions.

Parts of thermometers and accessories which come or may come into contact with food shall comply with the applicable hygiene requirements and regulations in terms of the materials used and their design. Such parts and the junctions between them or cables shall have smooth surfaces allowing easy cleaning and disinfection.

3.2 Temperature sensor

The design of the temperature sensor must allow penetration into food (including frozen food), or the accessories must include a tool enabling a suitable opening to be made in the food for insertion of the temperature sensor.

The temperature sensor design must be such that it cannot be damaged during routine cleaning (in particular, it must be waterproof and resistant to chemicals and mechanical stress).

Temperature sensors shall be designed so as to allow immersion in the working fluid in thermostatic baths (alcohol, water or oil) without being damaged during verification testing. The minimum immersion depth of the sensor must not be less than 40 mm. The immersion depth of the temperature sensor of the thermometer under test must be such that heat dissipation does not affect the thermometer indication.

For thermometers in which the protective sheath of the sensor consists of electrically conductive parts and the insulation resistance (resistance between the internal wiring and the sensor sheath) may affect the metrological properties of the thermometer, the insulation resistance shall be greater than 100 MΩ at a test voltage of 100 V and an ambient temperature of (15 to 35) °C.

If the length of the sensor connection cable to the indicating device influences the metrological properties of the thermometer, the sensor shall be permanently connected to the indicating device and access to the connection terminals shall not be possible without breaking the official marks.

3.3 Indicating device

The digital indicating device on the thermometer must have a resolution of 0.1 °C or better. The height of the digits on the digital display must be greater than 4 mm.

The unit of measurement for measuring the temperature of food shall be °C.

The external enclosure must safely protect the indicating device from external influences occurring when measuring food temperatures (in particular against condensation).

3.4 Ancillary devices

The thermometer may be fitted with a recording device for monitoring temperature over time.

The thermometer may be equipped with a communication interface which allows ancillary devices to be connected.

3.5 Software

In the case of electronic thermometers, the instrument software used must be identifiable (except where the instrument only displays the measured quantity and has no other functions). The software must be protected against accidental or intentional interference or damage and must comply with technical standard document WELMEC 7.2[2].

3.6 Power supply

Thermometers may be powered from the mains, from an adaptor or from an independent power source (batteries).

It must be possible to connect a thermometer with an external electrical power supply to a power supply with a nominal voltage of 5 V, 9 V, 12 V or 24 V (direct voltage).

Mains-operated thermometers must be supplied with an alternating voltage of U_N within the limits of U_N −15 % and U_N +10 %, where U_N is the nominal supply voltage specified by the manufacturer of the measuring instrument, with a frequency $f_N \pm 3$ Hz.

For reference purposes, a voltage of $U_N \pm 2$ % and a frequency of $f_N \pm 1$ % shall be used.

An independent power supply must be specified in the manufacturer's specifications, and the thermometer must indicate when the power supply needs to be recharged or replaced and must inhibit operation or switch off if the supply voltage falls below the limit specified by the manufacturer.

[2] WELMEC 7.2 Software Guide; *publicly available at* www.welmec.org

3.7 Resistance to external influences

3.7.1 Mechanical resistance

The design of the thermometer and the materials used must ensure sufficient strength, stability and resistance to mechanical shocks and free fall.

3.7.2 Resistance to climatic conditions

3.7.2.1 Limiting operating conditions for storage and transport

The thermometer or its components must withstand the storage temperature range of −30 °C to 70 °C without suffering damage or any deterioration in their metrological properties.

3.7.2.2 Degree of protection provided by enclosure

The degree of protection provided by the enclosure must be:

- IP 65 for temperature sensors;
- IP 55 for indicating devices.

3.8 Electromagnetic compatibility

Thermometers which contain electronic components must not be affected by electrical or electromagnetic interference, or must respond to such interference in a defined manner (for example by indicating an error, inhibiting measurement or similar).

3.9 Resistance to unauthorised tampering

Thermometers must not have properties which would facilitate fraudulent use, and the possibility of unintentional misuse must be minimal. Components that may not be dismantled or adjusted by the user shall be secured against such actions.

The adjustment controls of the thermometer must be secured in such a way that the settings cannot be altered during normal handling without breaking the official marks.

4 Measuring instrument markings

Measuring instrument markings shall be subject to technical requirements applicable at the time they were put into circulation.

4.1 Markings on the measuring instrument

The measuring instruments must be clearly and visibly marked with the following information:

a) the manufacturer’s name or mark;
b) type of measuring instrument;
c) serial number of the measuring instrument;
d) type approval mark of the measuring instrument;
e) operating temperature range;
f) the unit of measurement (°C) shall be indicated on the indicating device.

In the case of a temperature sensor that can be disconnected from the indicating device, the sensor label must at least provide an unambiguous means of linking the sensor to the indicating device (e.g. a serial number), and space must be provided on the sensor body for an official mark.

4.2 Placement of the official mark

The measuring instrument must have spaces provided for the affixing of official marks, as specified in the instrument's type approval certificate.

5 Measuring instrument type approval

5.1 General

The process of type approval of a thermometer shall include:

a) external inspection;

b) functional tests:
- insulation resistance test;
- accuracy test;
- determination of response time;

c) tests of resistance to external influences:
- test of resistance to ambient temperature effects;
- test of resistance to storage and transport temperature limits;
- test of protection against ingress of water and solid foreign objects (degree of protection provided by enclosure);

d) tests of immunity to supply voltage limits;
- test of immunity to AC supply voltage limits;
- test of immunity to changes in AC supply frequency;
- test of immunity to DC supply voltage limits;

e) electromagnetic compatibility tests:
- electrostatic discharge immunity test;
- radiated, radio-frequency, electromagnetic field immunity test;
- voltage dips and short interruptions immunity test;
- electrical fast transient/burst immunity test;
- surge immunity test;
- test of immunity to conducted disturbances induced by radio-frequency fields;
- power frequency magnetic field immunity test;

f) software tests

5.2 External inspection

The following shall be assessed during external inspection of the thermometer:

- the completeness of the required technical documentation;
- the conformity of the metrological and technical characteristics specified by the manufacturer in the documentation with the requirements of this regulation specified in Articles 2, 3 and 4;
- the completeness and condition of the thermometer in accordance with the required technical documentation;
- conformity of the software version of the thermometer with the version specified by the manufacturer, where relevant (see Article 3.5).

If significant deficiencies are found, the measuring instrument shall not be tested any further.

5.3 Functional tests

5.3.1 Test equipment

The following equipment shall be used for the tests:

a) thermometer used as a measurement standard, with a platinum resistance temperature sensor, a measuring range of at least (−30 to 200) °C and a measurement uncertainty of not more than 0.06 °C up to and including 85 °C and 0.15 °C above 85 °C;

b) a liquid thermostatic bath or baths with a temperature range of at least (−20 to 190) °C, permitting testing of temperature sensors with an immersion depth of at least 200 mm and a measurement uncertainty due to the homogeneity and stability of the temperature field of not more than 0.05 °C up to and including 85 °C and 0.15 °C above 85 °C;

c) ice-point realisation apparatus (0 °C) – a Dewar flask with a depth of at least 200 mm for immersing the sensors under test (recommended equipment for realising a temperature of 0 °C);

d) a stopwatch with a measuring range of at least 10 min;

e) an insulation resistance meter – DC voltage 100 V, measuring range extending to at least 100 MΩ.

All measuring instruments must have a valid calibration; the homogeneity and stability of the thermostatic baths must have been measured.

5.3.2 Insulation resistance test

The insulation resistance of the sensor is measured using a DC test voltage of 100 V at temperatures between 15 °C and 35 °C; at higher temperatures, a voltage of 10 V shall be used. The resistance is measured between the conductors of the internal wiring (connected together at the head terminal block or at the connector) and the sensor sheath. It shall be measured at laboratory temperature and, where technically possible, close to the maximum operating temperature of the sensor. The measurement must be carried out for both voltage polarities; the lower value applies. The test shall be carried out only if the conductors of the internal wiring are accessible.

The measured value shall meet the insulation resistance requirements set out in Article 3.2.

5.3.3 Accuracy test

The accuracy test shall be carried out by determining the measurement error at least three bath temperatures. The temperatures depend on the required test temperature range. The recommended ranges and temperatures are as follows:

- (−20 to 80) °C: t_1 = (−20 ± 2) °C; t_2 = (0 ± 2) °C; t_3 = (40 ± 2) °C; t_4 = (80 ± 2) °C;
- (−20 to 190) °C: t_1 = (−20 ± 2) °C; t_2 = (0 ± 2) °C; t_3 = (80 ± 2) °C; t_4 = (190 ± 2) °C;
- (80 to 190) °C: t_1 = (80 ± 2) °C; t_2 = (140 ± 2) °C; t_3 = (190 ± 2) °C.

During the test, the actual steady-state temperature of the bath, as determined by the thermometer used as a measurement standard, is compared with the indication on the thermometer under test. For each test temperature, a series of at least ten readings shall be taken from the thermometer used as a measurement standard and from the thermometer under test. The minimum immersion depth must comply with the requirement in Article 3.2. One cycle is carried out, first with increasing values and then with decreasing values, i.e., for example, for four temperatures the test sequence is t_1, t_2, t_3, t_4, t_3, t_2, t_1.

Measurement errors at the individual points must not exceed the maximum permissible errors set out in Article 2.3.

5.3.4 Determination of response time

The response time shall be determined in a thermostatic bath set to a temperature 20 °C lower or higher than the initial temperature (e.g. ambient temperature). The thermometer shall be allowed to stabilise at the initial temperature, after which the temperature sensor shall be immersed in the

thermostatic bath as quickly as possible. The time from the moment the temperature sensor is immersed until the indication reaches 90 % of the actual temperature change shall be measured.

The determined response time shall not exceed the response time set out in Article 2.4.

5.4 Tests of resistance to external influences

5.4.1 Test of resistance to ambient temperature effects

The complete thermometer in operation shall be placed in a climatic chamber that successively passes through the following phases:

1. the maximum limiting temperature specified by the manufacturer (50 °C if not specified by the manufacturer)
2. the maximum ambient operating temperature specified by the manufacturer
3. the minimum limiting temperature specified by the manufacturer (−30 °C, if not specified by the manufacturer)
4. the minimum ambient operating temperature specified by the manufacturer

Each phase must last at least 30 min after the indication has stabilised. During phases 2 and 4, the measurement error shall be determined and must meet the requirements set out in Article 2.3, with the climatic chamber maintained at the maximum and minimum operating temperatures, stabilised within ±2 °C.

5.4.2 Test of resistance to storage and transport temperature limits

The complete thermometer, in a non-operating state (switched off, where applicable), must be placed in a climatic chamber for three hours at each of the two limiting temperatures (usually −30 °C and 70 °C), with a temperature change rate of 1 °C/min during the transition from one limiting temperature to the other. The air flow velocity shall be between 1 m/s and 2 m/s. Five cycles shall be carried out.

Immediately after completion of the test, the measuring instrument shall be checked for changes in appearance. The appearance of the measuring instrument must not change, and the material and surface must not be cracked, blistered or changed in colour.

Two hours after completion of the test, the thermometer must, at the reference temperature, meet the requirements for maximum permissible errors set out in Article 2.3.

5.4.3 Test of protection against ingress of water and solid foreign objects (degree of protection provided by enclosure)

This test shall verify whether the measuring instrument complies with the specified degree of protection in accordance with Article 3.7.2.2.

NOTE The term ‘enclosure’ refers to the enclosure of the device in its operating position, i.e. including connectors (with any closure), seals or other accessories.

5.5 Test of immunity to supply voltage limits

5.5.1 Test of immunity to AC supply voltage limits

Immunity to AC supply voltage limits shall be tested with the thermometer switched on at limit supply voltages U_N −15 % and U_N +10 %, where U_N is the nominal supply voltage specified by the manufacturer of the measuring instrument. If the supply voltage is specified as a range of nominal voltage values, the test shall be performed at the lowest and highest voltages of that range. For each supply voltage value, the stabilisation time shall be at least 15 minutes.

Measurement errors at the supply voltage limits must not exceed the maximum permissible errors set out in Article 2.3.

5.5.2 Test of immunity to changes in AC supply frequency

Immunity to changes in supply voltage frequency shall be tested with the thermometer switched on at the limiting frequencies f_N ±3 Hz, where f_N is the nominal supply voltage frequency.

Measurement errors at supply voltage frequency limits must not exceed the maximum permissible errors according to Article 2.3.

5.5.3 Test of immunity to DC supply voltage limits

Immunity to DC supply voltage limits shall be tested with the thermometer switched on at limit supply voltages U_{min} and U_{max}, where U_{min} and U_{max} are the supply voltage limits specified by the manufacturer of the measuring instrument. For each supply voltage value, the stabilisation time shall be at least 15 minutes.

Measurement errors at the supply voltage limits must not exceed the maximum permissible errors set out in Article 2.3.

5.6 Electromagnetic compatibility (EMC) tests

During the tests, the values indicated by the thermometer shall be monitored. The condition specified in Article 2.1 for reference ambient conditions shall be met prior to each electromagnetic compatibility test. The difference between the errors recorded before and during electromagnetic compatibility tests must not exceed the maximum permissible error under reference conditions or, where applicable, under operating conditions, or the thermometer must respond in a defined manner.

At all test points, the thermometer must operate normally during measurement within the maximum permissible error set out in Article 2.3.

5.6.1 Electrostatic discharge immunity test

Immunity to electrostatic discharge shall be tested with the thermometer switched on, preferably with a contact discharge of ±4 kV to the metallic parts and an air discharge of ±8 kV to the non-metallic parts. Discharges shall be applied to the enclosure of the thermometer, with contact discharges also applied to coupling plates near the thermometer.

During the test, 10 measurements should be taken with a reference body with a known temperature for each polarity of the discharge voltage. One discharge is applied during each measurement. The interval between discharges should be at least 10 s.

5.6.2 Test of immunity to radiated, radio-frequency electromagnetic field

Immunity to radiated radio-frequency electromagnetic field shall be tested with the thermometer switched on in the 80 MHz to 6 GHz frequency band at a test field strength of 10 V/m up to 1 GHz and 3 V/m up to 6 GHz.

The test field shall be amplitude modulated with a modulation depth of 80 %, and the modulation signal shall have a sinusoidal waveform with a modulation frequency of 1 kHz.

The thermometer under test shall be irradiated by vertically and horizontally polarised fields from four mutually perpendicular directions.

The test shall be carried out at the following frequencies: (26, 40, 60, 80, 100, 120, 144, 150, 160, 180, 200, 250, 350, 400, 435, 500, 600, 700, 800, 934, 1 000, 1 400, 2 000, 2 400, 2 500 and 3 000, 3 500, 4 000, 4 500, 5 000, 5 500, 6 000) MHz. One measurement shall be taken at each frequency with a reference body with a known temperature. If the thermometer is found to be affected at any of the frequencies, testing shall be carried out in the vicinity of that frequency so as to identify the maximum effect at a frequency resolution of approximately 1 %.

5.6.3 Test of immunity to voltage dips and short interruptions

Immunity of the thermometer to supply voltage dips shall be tested at the nominal supply voltage.

The supply voltage shall be reduced to 75 % of the nominal supply voltage for 5 s. In order to avoid transients, the rise time should not be less than 100 ms.

For DC-powered devices, the interruptions shall last 5 ms, 20 ms, 100 ms and 500 ms.

For AC-powered devices, the dips shall always begin at a voltage zero crossing, successively before both the positive and negative half-cycles. The interruptions shall last for 1, 5, 10, and 25 AC voltage cycles. The supply voltage shall be reduced to 0 %, 40 % and 75 %.

5.6.4 Test of immunity to electrical fast transients/bursts

Immunity to electrical fast transients/bursts shall be tested with the thermometer switched on using the following voltages:

±2 kV at the AC supply voltage terminals;

±1 kV at DC power supply terminals with wiring longer than 3 m

±1 kV at terminals for signal, communication and control lines longer than 3 m;

The pulse repetition frequency shall be 5 kHz, the burst disturbance repetition period shall be 300 ms and the total duration at each input and for each pulse polarity shall be at least 1 minute.

The indication of the thermometer shall be monitored during the testing.

5.6.5 Test of immunity to surges

Immunity of the thermometer to surges shall be tested with the thermometer switched on using a surge of t_r/t_h = 1.2/50 µs with the following voltage:

±2 kV line-to-earth and ±1 kV line-to-line on AC power supply leads longer than 3 m

±1 kV line-to-earth and ±0.5 kV line-to-line on DC power supply leads;

±1 kV line-to-earth on signal, communication and control lines longer than 30 m not directly connected to the power supply network;

All lower levels of the tested voltage shall always be tested.

The input level of the thermometer shall be set so that its output level is at 50 % of the output signal range. During testing, the output signal of the thermometer shall be monitored.

5.6.6 Test of immunity to conducted disturbances induced by radio-frequency fields

Immunity of the thermometer to conducted disturbances induced by radio-frequency fields shall be tested with the thermometer switched on in the frequency range 150 kHz to 80 MHz, with an open-circuit test voltage of 10 V. The disturbance shall be applied to:

- AC or DC power supply leads;
- signal, communication and control lines longer than 3 m;

The input level of the thermometer shall be set so that its output level is at 50 % of the output signal range. During testing, the output signal of the thermometer shall be monitored.

5.6.7 Test of immunity to a power frequency magnetic field

In the case of equipment sensitive to magnetic fields, long-term immunity to a power-frequency magnetic field shall be tested with the thermometer switched on in a magnetic field of 30 A/m. The thermometer must be exposed to the field sequentially along all three principal axes.

5.7 Software tests

Software validation and testing shall be carried out, and an assessment shall be made as to whether the software meets the requirements set out in Article 3.5 Software. The software test shall be carried out in accordance with the relevant provisions of WELMEC 7.2[2].

[2] WELMEC 7.2: Software Guide (Measuring Instruments Directive 2014/32/EU) – – *publicly available at* www.welmec.org

6 Initial verification

6.1 General

During initial verification, the following activities and tests shall be performed:

a) visual inspection;

b) functional tests:
   - insulation resistance test;
   - accuracy test.

6.2 Visual inspection

A visual inspection shall be performed to assess whether:

- the measuring instrument submitted for verification and its components conform to the approved type;
- the measuring instrument and its components, including connecting cables, are not mechanically damaged and exhibit no signs of corrosion;
- the content and execution of markings and inscriptions correspond to the information and requirements specified in the type approval certificate for the measuring instrument.

If the measuring instrument fails to meet the visual inspection requirements, it shall not be tested any further.

6.3 Functional tests

6.3.1 Test equipment

The appropriate equipment pursuant to Article 5.3.1 shall be used for the tests.

6.3.2 Insulation resistance test

The insulation resistance test shall be carried out in accordance with Article 5.3.2 and shall only be carried out if the conductors of the internal wiring are accessible.

If the measured value does not meet the insulation resistance requirements set out in Article 3.2, the thermometer shall not be tested any further.

6.3.3 Accuracy test

The accuracy test shall be carried out by determining the measurement error at least three bath temperatures. The temperatures depend on the required test temperature range. The recommended ranges and temperatures are as follows:

- (−20 to 80) °C: t_1 = (−20 ± 2) °C; t_2 = (0 ± 2) °C; t_3 = (40 ± 2) °C; t_4 = (80 ± 2) °C;
- (−20 to 190) °C: t_1 = (−20 ± 2) °C; t_2 = (0 ± 2) °C; t_3 = (80 ± 2) °C; t_4 = (190 ± 2) °C;
- (80 to 190) °C: t_1 = (80 ± 2) °C; t_2 = (140 ± 2) °C; t_3 = (190 ± 2) °C.

During the test, the actual steady-state temperature of the bath, as determined by the thermometer used as a measurement standard, is compared with the indication on the thermometer under test. For each test temperature, a series of at least four readings shall be taken from the thermometer used as a measurement standard and from the thermometer under test. The minimum immersion depth must comply with the requirement in Article 3.2.

Measurement errors at the individual points must not exceed the maximum permissible errors set out in Article 2.3.

7 Subsequent verification

During verification, the procedure for initial verification pursuant to Chapter 6 shall be applied, with the exception of Article 6.3.2.

8 Re-testing of the measuring instrument

When re-testing measuring instruments pursuant to § 11a of the Metrology Act at the request of a person who may be affected by incorrect measurement, the procedure in Chapter 7 shall be followed. The accuracy test shall always be performed if the integrity of the measuring instrument and of its metrological properties is ensured and if it is technically possible.

The maximum permissible errors for measuring the internal temperature of food at a reference ambient temperature
of (23 ± 3) °C must be ±0.8 °C over the range (−20 to 85) °C inclusive and ±2 °C over the range (above 85 to 190) °C.

9 Notified standards

For the purposes of specifying the metrological and technical requirements for measuring instruments and the testing methods for their type approval, verification and re-testing arising from this Measure of a General Nature, the CMI shall notify Czech technical standards, other technical standards or technical documents of international or foreign organisations, or other technical documents containing more detailed technical requirements (hereinafter ‘notified standards’). The CMI shall publish a list of these notified standards associated with the relevant measure, together with the Measure of a General Nature, in a publicly accessible manner (at www.cmi.cz).

Compliance with notified standards or parts thereof is considered, to the extent and under the conditions stipulated by a general measure, to be compliance with the requirements stipulated by this measure to which these standards or parts thereof apply.

Compliance with a notified standard is one of the ways to demonstrate compliance. These requirements may also be met by using another technical solution guaranteeing an equivalent or higher level of protection of legitimate interests.

II.

G R O U N D S

Pursuant to § 14(1)(j) of the Metrology Act, the CMI has issued this Measure of a General Nature to implement § 6(2), § 9(1) and (9), and § 11a(3) of the Metrology Act, laying down metrological and technical requirements for specified measuring instruments and tests for type approval, verification and re-testing of specified measuring instruments – ‘thermometers used by inspection authorities for temperature checks stipulated by legislation on foodstuffs and foods’.

Decree No 345/2002 specifying measuring instruments for mandatory verification and measuring instruments subject to type approval, as amended, classifies this type of measuring instruments under item 4.1.3 in the annex entitled ‘List of the types of specified measuring instruments’ as measuring instruments subject to type approval and verification.

This legislation (Measure of a General Nature) was notified in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services.

Director General