

# **Decree No. 345/2002 Coll., setting down measuring instruments which are subject to legal control**

Decree No. 345/2002 Coll. as amended by  
Decree No. 65/2006 Coll.  
Decree No. 259/2007 Coll.  
Decree No. 204/2010 Coll.  
Decree No. 285/2011 Coll.  
Decree No. 120/2015 Coll.

**345**

**Decree**

**of the Ministry of Industry and Trade**

of 11 July 2002

**laying down measuring instruments which are subject to mandatory verification and subject to type approval**

The Ministry of Industry and Trade lays down pursuant to Section 27 of the Act No. 505/1990 Coll., on Metrology, as later amended (hereinafter referred to as “Act”) to implement the Section 3 subsection 3 and Section 6 subsection 1 of the Act:

Section 1

This Decree was notified in line with the Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and rules for information society services, as amended by the Directive 98/48/EC.

Section 2

## **Type Approval and Verification**

The measuring instruments mentioned in the Annex are subject to type approval and to initial verification. The measuring instruments referred to in Section 24b of the Act are not subject to type approval and initial verification. Additionally, the following are not subject to type approval: measuring systems of taximeters of taxi service cars, volumetric flasks, burettes and pipettes used for checks of volume, sedimentation (Westergren's) pipettes, stationary tanks used as volume measuring instruments, tachographs with registration of working activities of motor vehicles drivers, which are mandatorily equipped with them, tensioning devices for pre-stressed concrete and ground anchors, measuring microphones and personal sound exposure meters.

Section 2a

## **Extension of period of verification validity**

The types of measuring instruments, the validity of the verification of which can be extended based on the positive result of the statistical sampling test, are set in the Annex.

### Section 3

#### **Repealing provision**

The Decree No. 263/2000 Coll. which lays down Measuring Instruments for Obligatory Verification and Type Approval is hereby repealed.

### Section 4

#### **Entry into force**

This Decree shall enter into force on 1 September 2002.

The Minister:

doc. Ing. Grégr (signed)

#### **Annex to the Decree No. 345/2002**

List of measuring instruments subject to type approval and to initial verification

<b>Item</b>	<b>Field of measurement, type of measuring instrument</b>	<b>Verification validity period</b>
1	MEASURING INSTRUMENTS FOR THE MEASUREMENT OF GEOMETRICAL QUANTITIES	
<b>1.1</b>	<b>Length measuring instruments</b>	
1.1.1	Length measuring instruments for piece-goods	2 years
1.1.2	Survey tapes measures	Without limitation
1.1.3	Measuring equipment for the length measurement of coiled goods	2 years
1.1.4	Taximeters	2 years
1.1.5	Measuring systems of taximeters of taxi service cars	2 years
	Automatic level gauges for stationary tanks	
1.1.6	a) automatic level gauges	2 years
	b) automatic level gauges with automatic control of metrology parameters	4 years
<b>1.2</b>	<b>Area measuring instruments</b>	
1.2.1	Machines for measuring the area of leathers	1 year
<b>1.3</b>	<b>Volume and flow measuring instruments</b>	
1.3.1	Metal volume measures	2 years

1.3.2	Capacity serving measures	Without limitation
1.3.3	Volumetric flasks, burettes and pipettes used for the checks of volume	Without limitation
1.3.4	Sedimentation (Westergren's) pipettes	Without limitation
	Transport barrels and tanks	
	a) transport barrels with the exception of barrels mentioned in point b)	2 years
1.3.5	b) transport barrels produced from corrosion-proof materials, stable in shape	Without limitation
	c) transport tanks for liquids	4 years
	Stationary tanks used as volume measuring instruments	
	a) cooling and storage tanks for milk	4 years
1.3.6	b) wooden barrels	5 years
	c) concrete and brick storage tanks	Without limitation
	d) barrels and tanks of other materials	10 years
1.3.7	Butyrometers	Without limitation
1.3.8	Inspection measuring instruments for measuring of manufactured volume of ethanol <sup>1)</sup>	3 years
	Water meters	
	a) for cold water	6 years
	b) for hot water	4 years
1.3.9	c) drum water meters	2 years
	d) volumetric water meters	6 years *)
	*) Based on the positive result of the statistical sampling test from a specified set of volumetric water meters the validity period of the verification of the water meters in this set is extended for other 3 years.	
	e) Water meters for cold and hot water used for charging costs to the end-users	5 years
	Gas volume meters	
	a) diaphragm gas meters (including gas meters with temperature correction)	10 years*)
	*) Based on the positive result of the statistical sampling test from a specified set of diaphragm gas meters till the size G6 the validity period of the verification of the gas meters in this set is extended for other 4 years.	
1.3.10	b) rotary piston gas meters and velocity gas meters	5 years
	c) laboratory gas meters	5 years
	d) volume conversion devices*)	
	1. compact	5 years
	2. combined: A) evaluation unit	5 years
	B) temperature sensor	4 years
	C) pressure sensor	2 years
	*) Periods of verification are relevant provided that the volume conversion devices are subject to a regular shortened test with a period of validity of 1 year.	
1.3.11	Components of meters and measuring systems of flowed amount of liquid	

	a) flow sensors of cold water	6 years
	b) flow sensors of hot water	4 years
	c) flow sensors of gas	5 years
	d) pressure sensors	2 years
	e) sensors of pressure difference	1 year
	f) temperature sensors	4 years
	g) flow vibration density meters	1 year
	h) evaluation units for water	6 years
	i) evaluation units for liquids other than water and liquefied gases	2 years
	j) evaluation units for gas	5 years
	k) temperature sensors with a built-in converter	2 years
	l) flow sensors of liquids other than water and liquefied gas	2 years
	m) flow sensors of liquefied gas	1 year
1.3.12	Measuring instruments and measuring systems for measuring flow of liquids other than water and liquefied gas	2 years
1.3.13	Measuring instruments and measuring systems for measuring flow of liquefied gas	1 year
1.3.14	Measuring instruments and measuring systems for measuring flow of compressed natural gas	1 year
<b>2</b>	<b>MEASURING INSTRUMENTS FOR THE MEASUREMENT OF MECHANICAL QUANTITIES</b>	
<b>2.1</b>	<b>Mass measuring instruments</b>	
2.1.1	Trade and special common weights (class 5), precise weights (class 4) and fine weights (class 2 and 3)	2 years
	Non-automatic weighing instruments	
	a) weighing instruments of class I, II a III	2 years
2.1.2	b) weighing instruments of class III used for the weighing of sand, stone, solid waste, recycled waste, rubble, mineral and broken material and the weighing of mortar and concrete in the premises or equipment of their producers or transporters	2 years
	Automatic weighing instruments	
	a) weighing instruments for weighing rail vehicles in motion, class 0,2; 0,5 and 1	2 years
	b) weighing instruments for weighing road vehicles in motion class 0,5; 1 and 2 for assessment of sanctions, fees, tariff rates, and taxes; for weighing checks at low velocities pursuant to special legal regulation <sup>3)</sup> ; for the weighing of sand, solid waste, stone, recycled	1 year
2.1.3	waste, rubble, mineral and broken material and weighing mortar and concrete at the premises of their producers or transporters	
	c) weighing instruments for weighing checks of road vehicles in motion at high speeds pursuant to special legal regulation <sup>3)</sup> with a relative error less or equal to $\pm 5$ % for total vehicle mass and to $\pm 11$ % for axle load	1 year
	d) belt weighers of class 0,25; 0,5; 1 and 2	2 years
	e) gravimetric filling and catch weighers	2 years
2.1.4	Automatic and non-automatic checkweigher used by manufacturers and importers of pre-packed products for the measurement of true content of pre-packed product	1 year
2.1.5	Measuring equipment for the determination of loads:	
	a) axle loads or wheel loads of rail vehicles	3 years

	b) axle loads of road vehicles	1 year
2.1.6	Grain testing equipment	2 years
<b>2.2</b>	<b>Measuring instruments for the measurement of mechanical motion</b>	
2.2.1	Equipment for the measurement of the speed of vehicles for the purpose of the enforcement of laws	1 year
	Tachographs with registration of working activities of motor vehicles drivers, which are mandatorily equipped with them	
2.2.2	a) analogue	2 years from the date of verification
	b) digital	2 years from the date of verification
<b>2.3</b>	<b>Pressure measuring instruments</b>	
	Ophthalmic tonometers	
2.3.1	a) mechanical	1 year
	b) electronic	2 years
2.3.2	Blood pressure measuring instruments	2 years
2.3.3	Tyre pressure gauges for motor road vehicles with the exception of pressure measuring instruments used exclusively for the measurement of pressure in tyres by users of road motor vehicles	2 years
<b>2.4</b>	<b>Measuring instruments for the measurement of force</b>	
2.4.1	Pre-stressing devices for pre-stressed concrete and ground anchors	6 months
<b>3</b>	<b>MEASURING INSTRUMENTS FOR THE MEASUREMENT OF THERMAL-TECHNICAL QUANTITIES</b>	
<b>3.1</b>	<b>Temperature and heat measuring instruments</b>	
3.1.1	Clinical and veterinary electric thermometers	2 years
	Heat meters and cooling meters and their units	
	a) compact heat meters and cooling meters	4 years
	b) flow meters of volume of carrying medium	4 years
3.1.2	c) temperature sensors	4 years
	d) temperature sensors with a built-in converter	2 years
	e) pressure and pressure difference sensors	2 years
	f) evaluation units of combined heat meters and cooling meters	4 years
3.1.3	Thermometers for temperature of frozen food checks used by State inspection bodies	1 year
	Thermometers for ambient temperature and hot non-potable water checks with a scale division of 0,1 °C and better used by State inspection bodies <sup>2)</sup>	
3.1.4	a) glass	4 years
	b) electric	2 years
<b>4</b>	<b>MEASURING INSTRUMENTS FOR THE MEASUREMENT OF ELECTRICAL AND MAGNETIC QUANTITIES</b>	
<b>4.1</b>	<b>Measuring instruments for the measurement of electric quantities</b>	
	Inductive electrometers produced before 1 January 1990	
4.1.1	a) for the measurement of electric energy in direct wiring	10 years
	b) for the measurement of electric energy in connection with measuring transformers	5 years
4.1.2	Inductive electrometers produced after 1 January 1990	
	a) for measuring of electric energy in direct wiring	16 years*)

	*) Based on the positive result of the statistical sampling test from a specified set of electrometers the validity period of the verification of the electrometers in this set is extended for other 4 years.	
	b) for the measurement of electric energy in connection with measuring transformers on a low voltage level	12 years
	c) for the measurement of electric energy in connection with measuring transformers on high voltage and very high voltage levels	5 years
	Static electrometers	
	a) for measuring of electric energy in direct wiring	
4.1.3	*) Based on the positive result of the statistical sampling test from a specified set of electrometers the validity period of the verification of the electrometers in this set is extended for other 4 years.	12 years*)
	b) for the measurement of electric energy in connection with measuring transformers on a low voltage level	12 years
	c) for the measurement of electric energy in connection with measuring transformers on high voltage and very high voltage levels	5 years
	Current and voltage measuring transformers	
4.1.4	a) inductive transformers used in connection with electrometers	Without limitation
	b) capacitive transformers used in connection with electrometers	5 years
<b>5</b>	<b>MEASURING INSTRUMENTS FOR THE MEASUREMENT OF OPTICAL QUANTITIES</b>	
<b>5.1</b>	<b>Measuring instruments for the measurement of light quantities</b>	
	Optical radiometers for spectral range from 400 nm to 2800 nm and	
5.1.1	the measurement of radiation in the interval from $10^{-3} \text{ W.m}^{-2}$ to $10^2 \text{ W.m}^{-2}$	1 year
5.1.2	Luxmeters	2 years
<b>6</b>	<b>MEASURING INSTRUMENTS FOR THE MEASUREMENT OF TIME, FREQUENCY AND ACOUSTIC QUANTITIES</b>	
<b>6.1</b>	<b>Acoustic pressure measuring instruments</b>	
6.1.1	Sound measuring instruments of class 1 and 2	2 years
6.1.2	Band-pass filters	2 years
6.1.3	Tonal audiometers	2 years
6.1.4	Measuring microphones	2 years
6.1.5	Personal sound exposure meters	2 years
<b>7</b>	<b>MEASURING INSTRUMENTS FOR THE MEASUREMENT OF PHYSICAL AND CHEMICAL QUANTITIES</b>	
<b>7.1</b>	<b>Densitometers</b>	
	Laboratory densitometers with a scale division less than $1 \text{ kg.m}^{-3}$ with	
7.1.1	the exception of densitometers used for the measurement of granularity of soils (Casagrande)	Without limitation
7.1.2	Laboratory alcoholmeters with a scale division $\leq 0,2 \%$	Without limitation
7.1.3	Laboratory saccharimeters with a scale division $0,1 \%$	Without limitation
7.1.4	Laboratory must meters with a scale division $0,2 \text{ kg.hl}^{-1}$	Without limitation

7.1.5	Laboratory milk densitometers with a scale division $\leq 0,5 \text{ kg.m}^{-3}$	Without limitation
<b>7.2</b>	<b>Refractive index measuring instruments</b>	
7.2.1	Prismatic refractometers with a measurement error of refractive index less than or equal to $\pm 2.10^{-4}$	3 years
7.2.2	Prismatic refractometers with a measurement error of refractive index less than or equal to $\pm 5.10^{-5}$	4 years
<b>7.3</b>	<b>Measuring instruments of moisture of solid substances</b>	
7.3.1	Moisture meters for cereal grains and oilseeds of accuracy class 1 and 2	1 year
<b>7.4</b>	<b>Chemical composition measuring instruments</b>	
7.4.1	Process gas chromatographs for the determination of natural gas energetic value	1 year
7.4.2	Breath analysers	1 year
<b>8</b>	<b>MEASURING INSTRUMENTS OF QUANTITIES OF ATOMIC AND NUCLEAR PHYSICS</b>	
	Measuring instruments used for the monitoring of activity limits and volume activity of discharges from nuclear installations, from installations for mining or processing radioactive raw materials, processing or application of radioactive materials and from facilities for radioactive waste processing and for the determination of radiation load on the environment due to discharges	
8.1		2 years
8.2	Measuring instruments of activity of diagnostic and therapeutic products for in-vivo applications to patients	1 year
8.3	Measuring instruments used for the determination of diagnostic and therapeutic doses due to medical exposure	2 years
8.4	Measuring instruments of radon volume activity in the air and water and radon equivalent activity in the air, instantaneous values as well as short time and long time averages	2 years
8.5	Systems for the monitoring of radiation limits of persons, used in collectively performed dosimetric services	1 year
8.6	Spectrometric systems for analysis of sources or alpha, beta, gamma and neutron radiation fields	2 years
8.7	Non-spectrometric measuring instruments of activity and doses used for the monitoring of adherence to limits in the field of radiation protection and nuclear safety and for emergency measurement	2 years
8.8	Measuring instruments of activity and doses used for the monitoring of limits during radioactive waste handling and for the monitoring of release levels during introducing radionuclides into the environment	2 years
8.9	Measuring instruments used for the detection of sources of ionizing radiation in case of illicit or undesirable transport	2 years
8.10	Measuring instruments of activity for the monitoring of limit values of natural radionuclides content in building materials and water and of maximum permitted levels of radioactive contamination of foodstuffs	2 years
8.11	Measuring instruments of doses used for approval measurement during radiation treatment of foodstuffs	2 years

<sup>1)</sup>Section 3 of the Decree No. 140/1997 Coll., on Regulation and Circulation of Ethanol and on Performing Other Related Regulations of the Act on Ethyl Alcohol, as amended by the Decree No. 81/2000 Coll.

<sup>2)</sup>Decree No. 152/2001 Coll., which stipulates Rules for Heating and Supply of Hot Non-potable Water, Specific Indicators of Heat Consumption for Heating and for Preparation of Hot Non-potable Water and Requirements on Equipment of Internal Heating Facilities of Buildings with Instruments for Regulation of the Supply of Thermal Energy to the End Users.

<sup>3)</sup> e.g. Act No. 13/1997 Coll., on Roads, as later amended.