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Base Units of the International System of Units (SI), Units Derived therefrom, their Multiples and Submultiples and Internationally Established Additional Units and their Manner of Use¹

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Amended by the following acts

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28.11.2019	RT I, 03.12.2019, 5	06.12.2019

The Regulation is established pursuant to subsection 3 (4) of the Metrology Act.

§ 1. Scope of application

(1) This Regulation establishes the base units of the International System of Units (SI) to be used in Estonia, the units derived therefrom, their multiples and submultiples and internationally established additional units (hereinafter *compulsory units*) and their manner of use.

(2) Measurement results and quantities expressed in units of measurement can be presented, in addition to the compulsory units, also in units not set out in this Regulation, but they shall not be visually larger or otherwise highlighted while compared with the quantities expressed in compulsory units.

(3) A measuring instrument included in the list of measuring instruments subject to mandatory metrological control established pursuant to subsection 6 (4) of the Metrology Act may give measurement results and quantities expressed in units of measurement only in compulsory units.

§ 2. SI base units

(1) The International System of Units (SI) is based on the seven base units established by the the General Conference on Weights and Measures (*Conférence générale des poids et mesures*), defined in Annex 1 *Definitions of Base Units of the International System of Units (SI) and Derived Unit of Temperature*(hereinafter *Annex 1*), and the names and symbols are set out in table 1 of Annex 2 *Tables*(hereinafter *Annex 2*).

(2) The definition of the derived unit of temperature for expressing temperature on the Celsius scale is set out in Annex 1, and its special name and symbol are set out in table 2 of Annex 2.

§ 3. Derived SI units

(1) Derived SI units are derived from SI base units based on the dimensional expression of the corresponding physical quantity in the form of products of powers of the base units with a numerical factor equal to 1.

(2) The special names and symbols attributed to derived SI units are set out in table 3 of Annex 2. These units, in addition to SI base units, can be used for forming derived units in accordance with the rule set out in subsection (1).

(3) Derived units may be expressed by SI base units as well as by special names through SI units.

(4) Combinations of the units set out in the Annexes to this Regulation form compound units.

§ 4. Multiples and submultiples of SI units

(1) Decimal multiples and submultiples are the decimal multiples and submultiples of SI units, the decimal whereof is 10 or an exponent thereof, which are formed by using the prefixes and symbols set out in table 4 of Annex 2.

(2) The prefixes and their symbols are used only together with the name and symbol of the unit. The prefix symbol is written in front of the unit symbol without space, and the exponent of the unit symbol applies also to the prefix.

(3) Prefixes shall not be used in front of multiples or submultiples, and a unit may only have one prefix at a time.

(4) In expression of the value of a quantity it is advisable to use such prefixes that the number will be 0.1 to 1000. The decimal portion of the number is separated by a decimal point.

(5) In formation of decimal multiples and submultiples of derived units expressed as fractions of units, the prefix may be attached to the unit symbol in the numerator or the denominator, or in both these parts.

(6) The decimal multiples and submultiples of the unit of mass kilogram are formed by attaching prefixes to the word "gram" and their symbols to the symbol "g".

(7) The decimal multiples and submultiples of SI units to which special names have been attributed are set out in table 5 of Annex 2. Decimal multiples and submultiples may be derived from these units.

(8) Units which are defined on the basis of SI units but are not decimal multiples or submultiples thereof are set out in table 6 of Annex 2. No decimal multiples and submultiples shall be formed from these units, except the gon.

(9) The multiples and submultiples set out in tables 5 and 6 of Annex 2 may be used for forming derived units.

(10) The quantity "time" is used in relation to summer-time arrangements, where the beginning of summer-time in Estonia is at 03:00, at 01:00 Greenwich mean time, on the last Sunday in March, whereas clocks are turned forward 1 hour, and the end of summer-time in Estonia is at 04:00, at 01:00 Greenwich mean time, on the last Sunday in October, whereas clocks are turned backward 1 hour.

§ 5. Supplementary units

(1) The supplementary units are:

- 1) units defined independently of SI units;
- 2) units connected with SI units, permitted in specialised fields only.

(2) The units defined independently of SI units are set out in table 7 of Annex 2. These units are used in atomic physics and their values in SI units are obtained experimentally.

(3) Decimal multiples and submultiples may be formed from the units set out in table 7 of Annex 2.

(4) The units connected with SI units permitted in specialised fields only are set out in table 8 of Annex 2. Decimal multiples and submultiples may be formed from these units, except the millimetre of mercury.

§ 6. Implementing provision

The units of measurement not established by this Regulation may be used for products and equipment which have been put into free circulation before 1 May 2004, and for supplementation or replacement of components or parts of such products and equipment.

¹Council Directive 80/181/EEC on the approximation of the laws of the Member States relating to units of measurement and on the repeal of Directive 71/354/EEC (OJ L 39, 15.2.1980, p. 40–50), amended by Directives 85/1/EEC (OJ L 2, 3.1.1985, p. 11–12), 89/617/EEC (OJ L 357, 7.12.1989, p. 28–30), 1999/103/EU (OJ L 34, 9.2.2000, p. 17–19), 2009/3/EC (OJ L 114, 7.5.2009, p. 10–13), (EU) 2019/1258 (OJ L 196, 24.7.2019, p. 6–9); Directive 2000/84/EC of the European Parliament and of the Council on summer-time arrangements (OJ L 31, 2.2.2001, p. 21–22).

[RT I, 03.12.2019, 5 - entry into force 06.12.2019]

[Annex 1](#) Definitions of Base Units of the International System of Units (SI) and Derived Unit of Temperature [RT I, 03.12.2019, 5 - entry into force 06.12.2019]

[Annex 2](#) Tables