

IEQ IMPLEMENTATION WITHIN EPBD IN ESTONIA

- When EPBD was implemented and the first primary energy based energy frame and energy performance minimum requirements issued in Estonia in 2008 there was no regulation for ventilation and IAQ in residential buildings
- Ventilation requirements in the format of the average ventilation rate were set in the regulation of energy performance minimum requirements
<https://www.riigiteataja.ee/akt/107072020011>
- In this Annex 1 of the regulation, an average ventilation rate per net floor area, heating and cooling limits are defined, which have both been used in energy calculation and design of HVAC systems

Ventilatsiooni välisõhu vooluhulgale ja energiaarvutuses kasutatavate ruumitemperatuuride seadeväärtustele kehtivad nõuded

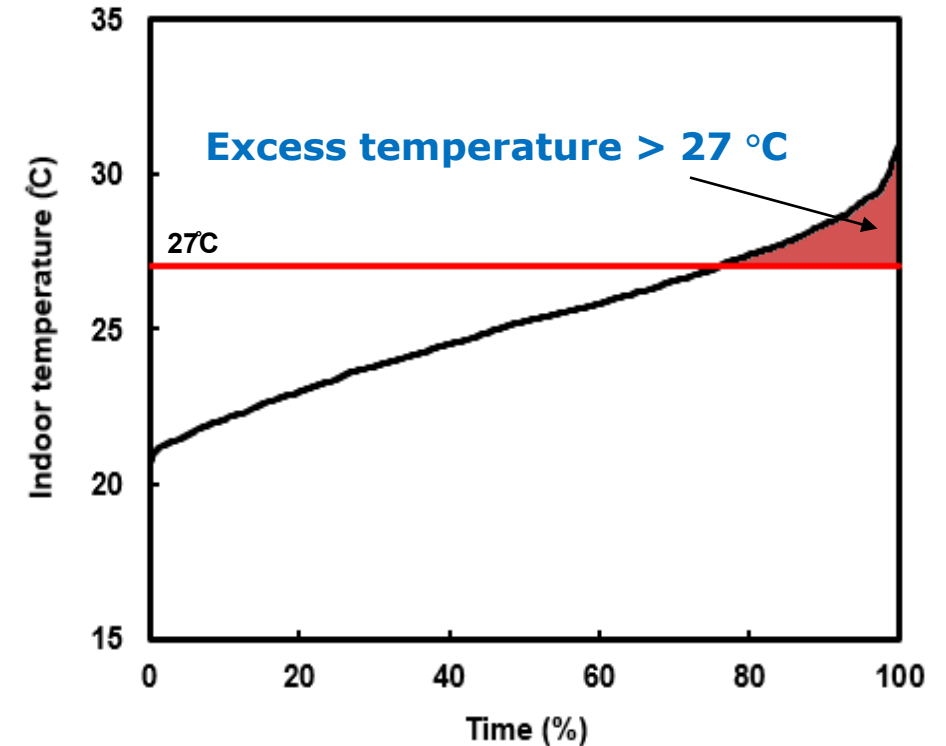
Hoone kasutusotstarve	Välisõhu vooluhulk, l/(s·m ²)	Kütmise seadeväärtus, °C	Jahutuse seadeväärtus, °C
Väikeelamu köetava pinnaga < 120 m ²	0,5	21	27
Väikeelamu köetava pinnaga ≥ 120 m ² ja ridaelamu	0,42	21	27
Korterelamu	0,5	21	27
Kasarmu	1,5	21	27
Kontorihoone	2	21	25
Majutushoone	1	21	25
Ärihoone	2	21	25
Avalik hoone ¹	2	21	25
Spordihoone	2	18	25
Kaubandushoone ja terminal	2	18	25
Haridushoone	3	21	25
Koolieelse lasteasutuse hoone	2	21	25
Ravihoone	2	21	25
Tööstushoone	0,9	20	27
Laohoone	0,35	15	27

¹ Spordihoonele on sätestatud ülejäänud avalikest hoonetest erinev kütmise seadeväärtus.

OVERHEATING REQUIREMENTS IN ENERGY REGULATION

- EPBD implementation/energy regulation introduced overheating requirements for buildings without cooling systems
- Temperature simulation is required for three summer months and indoor temperatures cannot exceed +27°C no more than 150 °Ch (degree hours) in residential buildings and +25°C no more than 100 °Ch in non-residential buildings (relevant for schools where cooling is often not used)
- Overheating requirements are set in the regulation of energy performance minimum requirements

<https://www.riigiteataja.ee/akt/107072020011>



NORMATIVE ANNEX FOR NON-RESIDENTIAL BUILDINGS

EESTI STANDARD

EVS 906:2010

- In addition to energy regulation, normative national annex of the EN standard for non-residential buildings ventilation was prepared in 2010 (revised 2018)
- EPBD implementation, i.e. energy regulation with ventilation requirements changed construction practice of residential buildings so that a typical mechanical exhaust ventilation system was replaced with mechanical supply and exhaust ventilation with heat recovery, and ventilation rates were increased to adequate level, together with other energy performance improvements

MITTEELUHOONETE VENTILATSIOON
Üldnõuded ventilatsiooni- ja ruumiõhu
konditsioneerimissüsteemidele
Eesti rahvuslik lisa standardile
EVS-EN 13779:2007

Ventilation for non-residential buildings
Performance requirements for ventilation
and room-conditioning systems
Estonian National Annex for
EVS-EN 13779:2007

NORMATIVE ANNEX FOR IEQ AND NATIONAL REGULATION

Estonia was the first MS in EU implementing national Annex A for IEQ standard EN 16798-1 in 2019

This standard provides comprehensive bases for indoor environmental parameters

Based on the requirements in energy regulation and national annexes, also more comprehensive national regulation on indoor climate and ventilation is under preparation, the first draft was sent to public consultation 18.10.2021:

<https://eelnoud.valitsus.ee/>

and is expected to be published by the end of 2021

EESTI STANDARD

EVS-EN 16798-1:2019/NA:2019

ENERGY PERFORMANCE OF BUILDINGS

Ventilation for buildings

Part 1: Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics

Module M1-6

Estonian National Annex

Hoonete energiatõhusus

Hoonete ventilatsioon

Osa 1: Sisekeskkonna lähteandmed hoonete energiatõhususe projekteerimiseks ja hindamiseks, lähtudes siseõhu kvaliteedist, soojuslikust keskkonnast, valgustusest ja akustikast

Moodul M1-6

Eesti standardi rahvuslik lisa