

Finnish Ministry of Environment has sent a notification 2017/71/FIN on the Finnish regulation for energy efficiency of buildings. Notification period has started on 17/02/2017 and ends 18/5/2017.

Regulation sets requirements for the energy efficiency of new buildings.

Regulation in its different clauses gives considerable reductions to the energy efficiency requirements, when the main construction material is massive wood. It also gives considerable reductions to the thermal resistance U-value requirements of building elements, when building elements are made of massive wood constructions.

According to the regulation massive wood construction is in question when the mean thickness of the massive wood layer is at least 180 mm. In all season used holiday cottages the mean thickness requirement is only 130 mm.

Reductions given to the energy efficiency of massive wood constructions are not justified with sound arguments based on calculations. Technical grounds are not given. Instead, they are included in the regulation to promote the use of wood constructions in Finland. Technical regulations having this kind of unfair requirements for some construction materials can be considered as technical barriers to trade and as illegal state subsidy to domestic construction materials.

Specific problematic clauses in the regulation are the following:

Clause 2

Article 4 gives reference values for the calculated energy performance indicator of buildings (E-value), which has been taken into use due to energy performance of buildings EPBD-directive. E-value may be up to 20 % higher depending on the type of the end use of the building if the main construction material of the building is massive wood constructions. Meaning that the use phase energy consumption is correspondingly higher.

Clause 3

Article 24 gives thermal resistance requirements i.e. U-values of the different parts of the building envelope. For exterior walls made of massive wood constructions 130 % higher U-values compared to other constructions are allowed in buildings having normal inside temperature and in buildings having inside temperature between +5 and 17 °C. For exterior walls made of massive wood constructions 230 % higher U-values compared to other constructions are allowed in all season used holiday cottages.

Clause 4

Article 29 determines the calculation rule for the cooling need. Regulation allows 2 °C higher over heat temperature in end use class 2 (apartment buildings) compared to other end uses of buildings (e.g. shopping centers, office buildings and schools). This is even only apartment buildings are in round a clock use. This higher over heat temperature can be considered as state support to wood constructions, since lightweight wood constructions overheats more easily than e.g. massive concrete and masonry constructions.