

Kontio Log House - proven to be tight



Kontiotuote has successfully used its new product development resources in developing the tightness of Kontio log houses. The tightness has been verified in tests conducted by VTT Technical Research Centre of Finland. As a result of product development efforts, good design and meticulous construction, a building with 205 mm laminated log walls erected in Oulu in 2005 reached the tightness value of $N50 = 1.5$ litres/h. It is an excellent result! The test conducted by the Technical Universities of Tampere and Espoo revealed that the average tightness value of 100 timber frame houses was 3.9 l/h. 4 l/h can be regarded as a good tightness value. A "traditional" log house where wool insulation is used in joints and neck joints reaches the same level, i.e. 4.

Tight log house is energy-efficient

Tightness is of vital importance in terms of total heat demand in the building. The total heat demand in a building with a 1.5 l/h tightness level is by circa 10 percent lower than that in a 4 l/h building. If the tightness of a log house with 205 mm laminated logs is improved from 4 to 1.5, the total heat demand in the building is the same as in a building with 300 mm laminated logs and the tightness of 4 l/h.

What is the basis for tightness in Kontio houses?

A Kontio log house is tight when the plans and installation instructions provided by Kontio are followed and the special seals delivered by Kontio are used in log joints, neck joints and window and door jambs.

Kontio log house is good to breathe in.

Though Kontio log houses are built air-tight, residents can still enjoy a uniquely good and comfortable indoor air. With its heat and humidity balancing properties, log ensures that the relative humidity of indoor air almost always remains within the optimal range in terms of indoor air quality (relative humidity 30 to 55 percent). Deviations from this humidity zone considerably increase dust, viruses and bacteria in indoor air.

Study: VTT, Carey J. Simonson, Mikael Salonvaara & Tuomo Ojanen 2001. Improving indoor climate and comfort with wooden structures.

Kontio log house is everything a log house dweller may hope for!

Excellent indoor air quality
Energy-efficient
Modern or traditional appearance
High-quality products built with the latest technology

