

- [12] Baccilieri F., Bornino R., Fotia A., Marino C., Nucara A., Pietrafesa M. (2016). Experimental measurements of the thermal conductivity of insulant elements made of natural materials: preliminary results, *International Journal of Heat and Technology*, Vol. 34, No. Sp. 2, pp. S413-S419. DOI: [10.18280/ijht.34Sp0231](https://doi.org/10.18280/ijht.34Sp0231)

NOMENCLATURE

K	square pattern size, grid cells
M	computational grid size along y-coordinate, grid cells
N	computational grid size along x-coordinate, grid cells
T	absolute temperature, K
W	average numbers of inclusions placements in the region bounded by the nearest neighbors
a	dimensionless fitting coefficient
b	dimensionless fitting coefficient
d	minimum distance between the isolated inclusions, grid cells
i	computational grid cell number along y-coordinate
j	computational grid cell number along x-coordinate
k	square inclusion size, grid cells
n	number of inclusions, which fell into a pattern
p	probability
x	coordinate

y coordinate

Greek symbols

α_3	distribution skewness
α_4	distribution kurtosis
β	dimensionless inclusion size
η	dimensionless inclusions concentration
θ	dimensionless temperature
κ	dimensionless thermal conductivity
λ	thermal conductivity, W.m-1. K-1
ν	number of tests
ξ	half-width the range of values.
σ	distribution standard deviation
ν	dimensionless parameter of the concentration dependence of the thermal conductivity distribution variation
ϑ	distribution variation coefficient

Subscripts

b	bottom
Ch	characteristic
inc	inclusion
isl	isolated
l	left
m	index, which enumerated the range of relative thermal conductivity values
mx	matrix
$noisl$	non-isolated
r	right
t	top