



## SPECIFIC INFORMATION ABOUT THERMAL CONDUCTIVITY

### Some interesting figures:

- The thermal conductivity of Asian teakwood = 0,38 W/m.K at 12% MC (moisture content)
- The measured conductivity of MARINEDECK 2000® is: 0,057 W/m.K.
- The general MC (moisture content) of natural teakwood is about 80%.
- The natural MC (moisture content) of Cork is 0%.
- 1<sup>st</sup>. conclusion: when measuring teakwood with a MC of 12%, the thermal conduction of MARINEDECK® exterior compared to teakwood would be:  $0,38/0,057 = 6,66$  times better. In other words the thermal conductivity of 1 mm MARINEDECK 2000® exterior is equal to 6,66 mm of teakwood.
- 2<sup>nd</sup>. conclusion: however when measuring with a MC (moisture content) of 80% being the general natural moisture content of teakwood, the thermal conductivity of MARINEDECK 2000® exterior would be substantially better compared to teakwood than the 6,66 times better as the thermal conductivity of water is 0,58 W/m.K
- Some other interesting information is that frozen water (ice) has got a thermal conductivity of 2,18 W/m.K. Taking this into consideration the theoretical outcome of the thermal conduction of frozen teakwood with a MC of 80% would be:  $80\% \text{ of } 2,18 \text{ W/m.K} = 1,744 \text{ W/m.K}$ . Taking into account cork has a MC of 0%, you theoretically might say  $1,744 : 0,057 = 30,52$ . This theoretically would mean that the thermal conductivity of MARINEDECK 2000® exterior would be 30,52 better in the Antarctic than teakwood.\*\*

**DURABLE MARINE FLOORS BY NATURE**  
**ECOLOGICAL EXCELLENCE**