For the heat sinks of low-conductive materials, thicker fins are necessary to reach the maximum of the removed heat flux. Moreover, it has been observed that the maximum removed heat flux is decreasing with the decrease of the conductivity of the material. Among the significant results, a linear correlation has been found between the heat flux increase given by the addition of the fins to the cooled surface and a characteristic parameter of the fins' dimension and material.

In conclusion, it has been found that alternative low-cost materials are suitable to substitute the commonly used ones in finned surfaces production. The thermal efficiency loss is reasonable in the case of aluminium and Zn-alloy, while PPS has been found to perform better than steel.

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