

Ivan Petrov, post-graduate student at the Department of Instrumentation, Mechatronics and Computerized Technologies, Cherkasy State Technological University

Ivan Petrov, Cand.Tech.Sc., Associate Professor, Associate Professor at the Department of Instrumentation, Mechatronics, and Computerized Technologies, Cherkasy State Technological University, e-mail: v.petrov@chdtu.edu.ua

Ivan Petrov, Dr.Sc., Professor, Professor at the Department of Instrumentation, Mechatronics, and Computerized Technologies, Cherkasy State Technological University, e-mail: r.petrov@chdtu.edu.ua

QUALITY CONTROL SYSTEM FOR ANTICORROSIVE COATINGS OF STEEL PRODUCTS

Abstract. alternative.

Key words: alternative energy, wind energy, wind turbine blade, materials for wind blade.

Introduction.

Temple of image (Fig. 1).

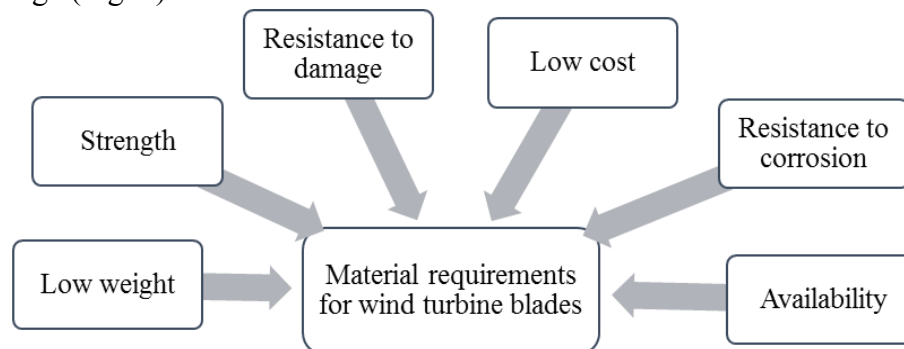


Fig. 1. Temple image

Temple of table (Table 1).

Table 1. The results compare weight and cost of wind turbine blades with dimensions of 2 x 0.5m, the wall thickness is 0.02 m for a conical shape [3,4]

Requirements Material	Weight (kg)	Cost (UAN)
Stainless steel	282,13	12696
Aluminum	95,22	3808
Aluminum alloys	96,137	15747
Titanium alloys	158,77	80973

Table 2 shows the results of the assessment of materials in accordance with the requirements [2,3]. A diagram of the results of the discrete assessment of the analysis is shown in Fig. 2.

Conclusions. The analysis shows that aluminum is the most suitable material for wind turbine blades. It combines high corrosion resistance, strength, affordability, and low weight, making it the best choice for use under wind loads. These advantages are clearly demonstrated in Fig. 2.

References

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