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ANALYSIS OF THE TENSE-DEFORMED STATE OF EPOXY COMPOSITE COATING

Introduction. A fight with the corrosion and wear is an important technical task the solution of which gives a significant economic effect. One of the options is to apply protective coatings on details of construction.

Literature review. The research of the tense-deformed state (TDS) of coatings can be executed experimentally or by calculation. Calculation determination of TDS of coating is possible only within the framework of the accepted physical model, however, with the appropriate software it is possible to get the result at any point of the examined area with minimal expenses of time.

Research objective. To calculate the tense-deformed state in the centers of stress concentration in the tests of samples of KP on a bend.

Result of research. The tense-deformed state (TDS) of monolayer of polymer coatings (CP) with a coating thickness of 0.4, 0.6 and 1.1 mm, deposited on the substrate surface (steel St. 3) was investigated. Tensions of TDS were calculated in a program written in the Pascal ABC language. It was set that the coating thickness $h = 0.4$ mm destroyed by the power of the load $P = 580$ N. Thus a type of destruction of coating is cracking. With the use of the developed program it was designed and installed that in the center of the coating the normal tension is $\sigma_n = -0.14$ MPa and tangential tension $t_t = 0$. Increasing the thickness of the CP from 0.4 to 0.6 mm provides an increase of maximal normal tensions on the butt-ends of coatings from $\sigma = 84.4$ to $\sigma = 86.8$ MPa. Further the increase of coating thickness up to 1.1 mm leads to the reducing of the maximal normal tensions to $\sigma = 84.9$ MPa. The indexes of maximal tangential tensions also increase with the increase of coating thickness from 0.4 mm to 0.6 mm, and decreases with the increase of the coating thickness from 0.6 to 1.1 mm. It says us about inexpediency thickness increases of CP more than 0.6 mm, as at that rate the cohesive properties of the system "coating - basis." Get worse.

Conclusion. Thus, using the developed software in the Pascal ABC language, we can talk about the perspective of this approach for the estimation of dynamic flexural properties of samples. This method enables to analyze the parameters of TDS arising up on the border of section basis- coating and, accordingly, the adhesive

properties of the coating to the metal substrate. This will manage the properties predictable CM during their operation in critical conditions.

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EXTERNAL AND INTERNAL SOURCES OF INVESTMENT RISK FOR TOURISM COMPANIES

Introduction. Nowadays tourism is one of the fastest growing industries. It is characterized by continued market penetration of new and improved tourism products, as well as its dependence on new technologies. Therefore, in order to secure a competitive advantage, tourism enterprises need to prepare and implement investment projects. Investment projects in tourism are typical risk projects. In the rapidly changing market environment (financial crises, the entry of new products, technological innovations and changes in the standard of living of the population) it is essential for managers, responsible for investment policy in tourism enterprises, to know the potential external and internal sources of risk in the implementation of investment projects.

Research objective. The purpose of this report is to present in details external and internal factors that are potential carriers of investment risk for tourism enterprises, and to propose methods for collection and analysis of information related to them, to help investment management professionals in tourism enterprises.

Result of research. Investment risk is associated with the uncertainty of the rate of return and can be defined as a possible deviation of the actual rate of return than expected [1, p. 20].

The discipline that studies the investment projects management is called Investment Management. It is a set of principles, methods and tools for managing the investment activities in the tourism business [2, p. 136].

External factors for the tourism company can be divided into three groups: the market environment factors, suppliers, customers.

Research and analysis of the market environment in tourism has the task of identifying the impact of those factors that tourist enterprise cannot control and which could become a source of investment risk - demographic, social, cultural, economic, scientific, political, legal and natural conditions [3, p. 140]. First it needs to be considered that each of these factors is a potential source of risk by determining its effect on the tourist business. Second, the collected information needs to be analyzed in order to forecast the development of the market environment in the future. Also the exceptional dynamics of market reality needs to be considered and the fact that the market is different at each stage of the implementation of the investment project. The lack of reliable information collected and its wrong or subjective analysis lead to unrealistic forecasts, which in turn creates uncertainty in the investment programs [4, p. 76].