

Economic Efficiency of Innovative Non-Destructive Testing Operations

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quality, reliability, non-destructive testing, innovative approach, management decisions, production organization

For any innovation, it is important to calculate the economic efficiency that it will bring when introduced into production. This is especially necessary for innovations that include additional procedures that increase the complexity of the production process. We have calculated the economic efficiency of measures to improve the quality and reliability of finished ceramic products when introducing innovations and have developed a scheme for the consistent implementation of innovative projects, taking into account the economic effect of the introduction of each innovation. The introduction of innovative operations of visual-optical non-destructive testing (VOT) at the stage of mechanical processing of ceramic products made it possible to reduce to zero the number of destroyed products during technological crimping operations, which in monetary terms amounted to 85 million rubles in savings in the period from 2017 to 2021 inclusive; exclude economically unjustified processing of the outer surface of 10,6 % of processed products; save an average of 80 % of products sent for revision with identified small-sized defects.

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