

ABSTRACT

Bachelor`s dissertation: 78 p, 31 figs., 27 tables, 9 references.

The purpose of the work: to develop a technological process for the production of the artistic product “Fumo” by casting according to the melted models.

Research methodology: 3D printing of the product prototype; manufacturing of an elastic mold with a gypsum casing; manufacturing of lost-wax models; formation of a multilayer ceramic mold; loss of models from the mold; pouring molten steel into the molds; removal of the casting system by gas cutting; finishing of castings.

Results of the work and their novelty: the suitability of structural metals for the manufacture of artistic castings has been determined

Key performance indicators: the technological process of manufacturing an artistic product “Fumo” weighing 8.45 kg from steel 45 with dimensions of 200x120x170 mm by casting according to the models to be melted down was implemented.

Application: artistic casting of unique products.

Economic efficiency: UAH 80009.48.

Forecast assumptions about the object of study: development of technological processes for the manufacture of cast art products of similar size and complexity in small-scale production.

ARTISTIC CASTING, LOST-WAX MODELS, 45L STEEL, COMBINED MOLD, 3D PRINTING, CERAMIC SHELL MOLD