

ABSTRACT

Diploma project of the “Bachelor” degree: « **Glass tube manufacturing plant for medical needs**» / Igor Sikorsky Kyiv Polytechnic Institute; Supervisor: *Golembiovskyi A.O.*; Student: *Yushkevych S.V.*, XM–42 group.

Explanatory note: 94 pages, 2 figures, 33 tables, 46 sources, 7 appendixes.

Graphic part: 8 A1 sheets.

Object of the research - plant for of a ware from an medical glass

Purpose of the work - to develop a plant for the production of glassware for the extended range of horizontal extraction method in accordance with the individual tasks and latest global trends.

A project for the production of glass tube extended total capacity of 37 million products per year was created.

Method of the project: production batch as a mixture of raw materials. Selected in accordance with designed machinery and appropriate technology nodes.

For making designed glass a glass bath furnace of continuous action of arc type direction flare and pair of burners was designed. The furnace is heated with natural gas.

To increase the campaign in kiln, design involves the use of electrofusion refractories from leading European manufacturers for masonry walls and furnace bottom of the pool.

For formation of products horizontal extraction method used. For elimination of shortcomings of a surface - flame polishings..

Building a plant is to be designed in a rectangular two-storey building of the size of 36 x 66 m and height of 15 m.

Keywords:

MEDICAL GLASS, SHOP, GLASS FURNACE, GLASS TUBE, ANNEALING, CALCULATION OF THE FURNACE CHARGE CHANGE TECHNOLOGY, MATERIAL BALANCE, THE CALCULATION OF FUEL COMBUSTION, HEAT BALANCE.