

## ABSTRACT

Diploma project of the “Bachelor” degree: «**Factory district for the production of optical fiber glass**» / Igor Sikorsky Kyiv Polytechnic Institute; Supervisor: *Golembiovskiy A.O.*; Student: *Hrytsiuk Y.A.*, XM–42 group.

Explanatory note: 98 pages, 2 drawings, 3 graphs, 53 tables, 38 sources, 2 appendices.

Graphic part: 8 sheets of A1 format.

The object of work – a factory district for the production of optical fiber glass.

The purpose of the work is to develop a factory district for the production of optical fiber glass in accordance with the individual task and the latest world trends.

The project of factory district for the production of optical fiber glass with a total productivity of 3,650 km/year was developed. The project provides processing of raw materials. Appropriate equipment has been selected and appropriate technological units have been designed.

An periodic action resistance electric furnace has been designed for producing glass. One milting pot was installed in the furnace. Carbide-silicon cores use as a heating element. A two-milting pot installation with a capacity of 7 m/min have been designed.

The division is supposed to be made in the form of a symmetrical building with an area of 118 m<sup>2</sup>.

### **Keywords:**

LAYER, DISTRICT, GLASSWARE, HEATING ELEMENT, OPTICAL FIBER, TWO-MELTING POT INSTALLATION, TECHNOLOGY, MATERIAL BALANCE, HEAT BALANCE.