



# Epiel

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For more than 20 years Epiel has been successfully meeting the needs of domestic and foreign electronics industry in epitaxial structures. The combination of high scientific potential and wide production capabilities makes Epiel a unique enterprise in its field not only in Russia, but also in the world.

## History of creation

Epiel was founded in 1998 in Zelenograd by specialists of the Research Institute of Material Science, the Research Institute of Precision Machine Manufacturing on the basis of the epitaxy section of Micron Plant as an independent enterprise specializing in the production of silicon epitaxial structures for domestic microelectronics.

# Products

Today Epiel produces world-class silicon epitaxial structures with diameters of 100, 150 and 200 mm, which are supplied to the largest microelectronics plants in our country - Micron and Angstrom, as well as abroad.

Later on, on the basis of these structures, microcircuits are produced which are used in electronic devices for both domestic and special purposes. For example, integrated circuits produced by Micron plant are used in contactless Radio Frequency Identification tickets of Moscow transport network.

The peculiarity of such structures is that the epitaxial layer of silicon is applied to the sapphire substrate, which is an insulator.

Silicon on Sapphire structures are used in the production of electronic components for both civil and military and space applications. In particular, they are used to produce radiation-resistant integrated circuits used in electronic systems of space equipment, nuclear power plants, as well as in communication devices, optoelectronics and electronics of special applications.

## Innovative development

### **Improving the quality of epitaxial structures**

Epiel considers constant innovations aimed at improving the quality of produced and developing new types of epitaxial structures with advanced development of their production for future development plans of domestic consumers as the main strategic direction of development.

### **Creating a new production area equipped with higher class equipment**

Over the past five years, the company has made a new breakthrough in its development by implementing the project of creating a new production area equipped with higher class equipment.



Implementation of the project required significant investments into equipment, clean rooms and infrastructure. This unique project is of special importance for the Russian electronics industry as it lays a solid foundation for its further development.

**Developing new methods for obtaining epitaxial structures**

As part of a major project, in 2019 Epiel started mastering the technology for obtaining epitaxial structures based on gallium nitride.

**Experienced specialists**

The pride of the company is a team of experienced specialists in the field of epitaxy, whose efforts have developed flexible technologies for the production of silicon epitaxial structures used today by Epiel.

## Participation in the Federal Target Program

The company takes an active part in implementation of the Federal Target Program - Development of the electronic component base and radio electronics. As a part of this work, a number of research and development projects aimed at developing production technologies for new advanced types of epitaxial structures for the Russian market have been successfully carried out over several years. In 2015, the process of certification of Epiel as the main supplier of 200 mm diameter epitaxial structures for Mikron was completed, thus solving the task of import substitution of these products.

## Manufacture

Epiel is a resident of Technopolis Moscow.

# Contacts



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