

Preface

In this specialised publication, the reader will find research results and real engineering developments in the field of modern technical textiles.

Modern technical textile materials, ranging from ordinary reinforcing fabrics in the construction and production of modern composite materials to specialised textile materials in the composition of electronics, sensors and other intelligent devices, play an important role in many areas of human technical activity. The use of specialized textiles, for example, in medicine makes it possible to achieve important results in diagnostics, prosthetics, surgical practice and the practice of using specialized fabrics at the health recovery stage.

The use of reinforcing fabrics in construction can significantly improve the mechanical properties of concrete and various plaster mixtures, which increases the reliability and durability of various structures and buildings in general.

In mechanical engineering, the use of composite materials reinforced with special textiles can simultaneously reduce weight and improve the mechanical properties of machine parts. Fabric-reinforced composites occupy a significant place in the automotive industry, aerospace engineering, and shipbuilding. Here, the mechanical reliability and thermal resistance of the body material of the product, along with its low weight, are very relevant.

The presented edition will be useful and interesting for engineers and researchers whose activities are related to the design, production and application of various technical textile materials.