

Preface

Modern textile production is a specialized and innovative industrial branch. Conventional and technical textiles are developed according to the precise requirements for their functional purpose and are produced using advanced materials and cutting-edge technologies.

In this domain, the choice of materials is crucial, as end products are designed for specific functions. Materials range from high-performance natural and synthetic fibers like cotton, aramids and polyesters to advanced coatings, laminates, and multicomponent composites, depending on the intended application.

The technological aspects of textile production involve sophisticated manufacturing processes tailored to meet stringent performance criteria. Advanced weaving and dying techniques, coating methods, and specialized finishing processes contribute to the creation of textiles with enhanced durability, strength, and functionality.

The applications of technical textiles are diverse and span industries such as automotive, aerospace, healthcare, construction, and sports. Examples include airbags in automobiles, geotextiles for soil stabilization, medical textiles for wound care, protective textiles for firefighters or military personnel, etc.

This special edition will be interesting and helpful to specialists in the textile industry.