

1. Record Nr.	UNINA9910805583203321
Autore	Jamshaid Hafsa
Titolo	Knitting Science, Technology, Process and Materials [[electronic resource]] : A Sustainable Approach // edited by Hafsa Jamshaid, Rajesh Mishra
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-44927-4
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (206 pages)
Collana	Textile Science and Clothing Technology, , 2197-9871
Altri autori (Persone)	MishraRajesh
Disciplina	620.1
Soggetti	Building materials Sustainability Materials science Wood, fabric, and textiles Materials Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 -- Introduction: Knitting Fundamentals. Chapter 2 -- Yarns in Knitting. Chapter 3 -- Weft Knitting Machines. Chapter 4 -- Weft knitted structure and their effect on fabric properties. Chapter 5 -- Mechanics of weft knitted structure. Chapter 6 -- Knitwear Dyeing; Theory and Sustainability. Chapter 7 -- Textile testing and quality control in knitting. Chapter 8 -- Technical Applications of Knitted Fabrics.
Sommario/riassunto	This volume explains knitting technology in an easily-comprehensible and user-friendly manner. The manufacturing of a cost-effective quality product requires careful planning and thorough knowledge of the product as well as production technology. To achieve the desired functional properties in fabric, the relationship between the raw materials, process and finished product is very important. Knitting has been and remains an important textile technique due to the properties of knitted fabric such as elasticity, stretchability, and comfort. Despite the prominence of knitwear, there has been limited data regarding mechanics of weft knitted fabric and effect of structures on physical, mechanical and comfort properties. This book is an attempt to fill that

gap. The book provides knowledge about fabric manufacturing techniques, weft knitting structure, and methods of evaluating knitted fabrics and their applications in technical textiles. It also discusses different types of yarn and their manufacturing processes. Testing and quality control in industrial practice as well as management of a fabric dyeing house are also covered.
