Record Nr. UNINA9911007367103321 Autore Biranje Santosh Titolo Sustainable Finishing Techniques in Textiles / / edited by Santosh Biranje, Mohammad Shahid, Ravindra V. Adivarekar Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9648-60-2 [1st ed. 2025.] Edizione 1 online resource (379 pages) Descrizione fisica Altri autori (Persone) ShahidMohammad AdivarekarRavindra V Disciplina 620.1 Soggetti **Building materials** Sustainability Nanotechnology Wood, fabric, and textiles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Biodegradable and Sustainable Finishes of Textiles -- Biodegradability Nota di contenuto and Sustainability in Textile Finishing Current Challenges and Future Perspectives -- Bioactive Finishes for Sustainable and Functional Textiles -- Wellness Finishes of Textiles for Aroma, Health, and Hygiene Integrating Functional Textile Finishing Techniques --Biotechnological Innovations for Sustainable and Environment Friendly Textile Production. Sommario/riassunto This book highlights cutting-edge advancements in textile finishing techniques, offering a comprehensive overview of mechanical, chemical, and sustainable methods. It highlights biodegradable and bioactive finishes, focusing on health, hygiene, and aroma applications. Biotechnological innovations, including microbial enzymes and enzymatic processes, are discussed as eco-friendly solutions for modern textile production. The book examines advancements in polymeric materials, plasma technology, and thermal regulation with

phase-change materials, showcasing their role in enhancing

performance and sustainability. It also delves into flexible electronics in textiles and innovations in agro-textiles, emphasizing sustainable raw materials and finishing techniques. With a focus on current challenges,

future prospects, and the assessment of sustainable finishes, this publication serves as a key resource for understanding transformative technologies shaping the environmentally conscious textile industry.