

1. Record Nr.	UNINA9911019802703321
Titolo	Nonwoven fabrics / / edited by Wilhelm Albrecht, Hilmar Fuchs, Walter Kittelmann
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, 2003
ISBN	9786610520404 9781280520402 128052040X 9783527605316 3527605312 9783527603343 3527603344
Edizione	[[New, updated, extended ed.].]
Descrizione fisica	1 online resource (774 p.)
Altri autori (Persone)	AlbrechtW <1927-> (Wilhelm) FuchsHilmar KittelmannWalter LunenschlossJ <1922-> (Joachim)
Disciplina	677/.6
Soggetti	Nonwoven fabrics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Rev. ed. of Vliesstoffe, which was published in English as Non-woven bonded fabrics (1985) and edited by J. Lunenschloss and W. Albrecht.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Nonwoven Fabrics; Foreword; Preface; Contents; 0 Introduction to nonwovens; 0.1 Definition of nonwovens; 0.2 Nonwoven manufacturing processes; 0.3 Nonwoven properties and applications, including environmental considerations; 0.4 Development of the nonwovens industry; 0.5 Future perspectives; Part I Raw materials for the production of nonwovens; 1 Fibrous material; 1.1 Natural fibres; 1.1.1 Vegetable fibres; 1.1.2 Animal fibres; 1.2 Chemical fibres; 1.2.1 Chemical fibres made from natural polymers; 1.2.2 Man-made fibres from synthetic polymers; 1.2.3 Modification of synthetic fibres 1.3 Other fibres made in industrial processes1.3.1 Glass fibres; 1.3.2 Silicate fibres; 1.3.3 Carbon fibres; 1.3.4 Boron fibres; 1.3.5 Metal fibres; 1.4 Reclaimed fibres; 1.4.1 Basics; 1.4.2 Making textile waste into reclaimed fibres; 1.4.2.1 Pre-treatment; 1.4.2.2 Principle of

reclaiming; 1.4.2.3 Subsequent treatment; 1.4.3 Reclaimed fibre quality; 1.4.4 Reclaimed fibre application; 2 Other raw materials; 2.1 Cellulose (Pulp); 2.2 Granules; 2.2.1 General discussion of physical properties; 2.2.2 Polyolefins; 2.2.3 Polyesters; 2.2.4 Polyamides; 2.3 Powders; 2.3.1 Polymer powders
 2.3.1.1 Polyacrylonitrile 2.3.1.2 Further copolymers; 2.3.2 Additives; 2.3.3 Stabilizers; 2.3.4 Pigments; 2.4 Absorbent polymers; 2.4.1 Absorption mechanism; 2.4.2 Production process; 2.4.2.1 Suspension polymerization; 2.4.2.2 Solution polymerization; 2.4.2.3 Surface crosslinking; 2.4.2.4 In-situ polymerization; 2.4.3 Test methods; 2.4.3.1 Characteristic data of absorbent polymer; 2.4.4 Field of application; 2.4.5 Summary; 2.5 Spin finishes; 2.5.1 General; 2.5.1.1 Definitions; 2.5.1.2 The requirements placed on spin finishes; 2.5.1.3 Compositions of spin finishes
 2.5.2 The application of spin finishes 2.5.2.1 Man-made fibre production; 2.5.2.2 Processing; 2.5.3 Test methods; 2.5.3.1 Tests on the spin finishing agent; 2.5.3.2 Tests on spin finished fibre material; 2.5.4 Spin finishes on nonwovens; 2.5.4.1 General; 2.5.4.2 Nonwoven fabric manufacture and spin finishes; 2.5.4.3 End product and spin finish; 2.5.5 Future prospects; 3 Binders; 3.1 Introduction; 3.2 Binder fluids; 3.2.1 Chemical structure, construction principle; 3.2.1.1 Monomers; 3.2.1.2 Functional groups, crosslinking agents; 3.2.2 Binder fluids and their processing
 3.2.3 Binder fluids and the properties of nonwoven fabrics 3.2.4 Focal points of development; 3.3 Adhesive fibres; 3.3.1 Soluble fibres; 3.3.2 Hotmelt adhesive fibres; 3.3.2.1 Appearance; 3.3.2.2 Chemical structure; 3.3.2.3 Mechanism of bonding; 3.3.2.4 Properties; Part II Processes to manufacture nonwovens; 4 Dry-lay process; 4.1 Nonwoven fabrics; 4.1.1 Fibre preparation; 4.1.2 Production of fibrous webs by carding; 4.1.2.1 Roller carding theory; 4.1.2.2 Plant technology; 4.1.2.3 Web forming; 4.1.2.4 Web drafting; 4.1.3 Fibre webs following the aerodynamic procedure
 4.1.3.1 Aim of the procedure

Sommario/riassunto

From the utilization of textile waste to the high-tech product - this is how modern nonwovens can best be described. Web formation and web bonding processes have recently been enhanced. Nowadays, fibres, granulates, binder and finishing agents are used. This development entails a wider range of applications in the fields of hygiene, medicine, the garment-producing and building industries, interior design as well as further technical uses. This book provides comprehensive information about nonwovens, from the raw material fibres via the manufacturing processes to finishing and to the
