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Titolo	Handbook of Adhesion Technology / / edited by Lucas F. M. da Silva, Andreas Öchsner, Robert D. Adams
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ISBN	3-319-55411-5
Edizione	[2nd ed. 2018.]
Descrizione fisica	1 online resource (919 illus., 428 illus. in color. eReference.)
Collana	Springer reference
Disciplina	668.3
Soggetti	Manufactures Materials science Polymers Engineering design Mechanics, Applied Solids Machines, Tools, Processes Materials Science Engineering Design Solid Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction to adhesive bonding technology -- Theory of Adhesion -- Surface treatments -- Adhesive and sealant materials -- Testing of adhesive properties -- Joint design -- Durability.-Manufacture.-Quality control -- Applications -- Emerging areas.
Sommario/riassunto	This 2nd edition is a complete revision with an update of the methods that have been investigated recently and that are now fully accepted by the adhesion community. Themes that are now treated in more detail include for example hybrid adhesives used for automotive applications, ecofriendly surface treatments, damage mechanics, joint durability prediction and functionally graded joints. There is also a new chapter related to the application of adhesives in the oil industry. Besides these content changes, there has been a complete revision of all chapters in

terms of text, figures, tables and references for a more didactic character of this reference book. The Handbook of Adhesion Technology is intended to be the definitive reference in the field. Essential information is provided for all those concerned with adhesion, which is a phenomenon of interest in diverse scientific disciplines and of importance in a wide range of technologies. Therefore, this book includes the background science (physics, chemistry and materials science), engineering aspects and industry-specific applications. It is arranged in a user-friendly format with ten main sections: theory of adhesion, surface treatments, adhesive and sealant materials, testing of adhesive properties, joint design, durability, manufacture, quality control, applications and emerging areas. Each section contains about five chapters written by internationally renowned authors who are authorities in their fields. This book offers a quick, but authoritative, description of topics in the field of adhesion and the practical use of adhesives and sealants. Scientists and engineers of many different backgrounds who need to have an understanding of various aspects of adhesion technology will find it highly valuable. These will include those working in research or design, as well as others involved with marketing services. Graduate students in materials, processes and manufacturing will also want to consult it.