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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- External Thermal Insulation Composite Systems (ETICS) -- Hygrothermal behaviour of ETICS – Experimental and numerical study -- Critical parameters involved in exterior surface condensation on ETICS -- Risk assessment of hygrothermal behaviour of ETICS -- The effect of nearby obstacles in surface condensations on ETICS – Experimental and numerical study -- Conclusions.
Sommario/riassunto	This book analyzes the hygrothermal behaviour of external thermal insulation composite systems (ETICS), components that increase the thermal efficiency of buildings. Treating a topic that has largely been neglected, it explores the main cause of biological growth within ETICS. The results of two experimental test series are presented: (i) a long-

term assessment of four façades covered with ETICS and (ii) an evaluation of the factors affecting the façades' hygrothermal behaviour. Furthermore, using a previously validated numerical model, it presents a sensitivity analysis of the hygrothermal behaviour of façades coated with ETICS. It also provides a methodology to assess the surface humidification of ETICS, which combines the effect of surface condensation, wind-driven rain and the drying process (three of the most prevalent parameters influencing the surface moisture content), which can then be used as a decision-support tool. ETICS are now frequently used in Europe to improve the thermal efficiency of buildings. Despite their advantages in terms of thermal efficiency, their low cost and their ease of application, these systems are adversely affected by microbiological growth, which causes defacement of cladding. Although the thermal and mechanical performance of the system is not impaired, biological defacement has an enormous aesthetic impact, affecting the inhabitants' living experience and restricting the full implementation of this technology. External Thermal Insulation Composite Systems (ETICS): An Evaluation of Hygrothermal Behaviour provides a valuable resource to engineers and architects utilizing ETICS in their work, and for researchers and students interested in the hygrothermal behaviour of ETICS. It is also intended for those employed in industry and manufacturers of ETICS.