

DETAIL Practice

Insulating Materials

Principles
Materials
Applications

Margit Pfundstein
Roland Gellert
Martin H. Spitzner
Alexander Rudolphi

Birkhäuser
Edition Detail

DETAIL Practice
Insulating Materials

Margit Pfundstein
Roland Gellert
Martin H. Spitzner
Alexander Rudolphi

Contents

7	<i>Introduction</i>
8	<i>Properties of insulating materials</i>
	<i>Types of insulating material</i>
17	Classification
21	Inorganic insulating materials
34	Organic insulating materials
55	New developments
	<i>Statutory instruments and insulating material standards</i>
59	Construction Products Directive (CPD) and Construction Products Act
60	Construction legislation instruments
63	European standards and approvals for thermal insulating materials
66	National codes of practice and technical approvals
71	Attestation of conformity
73	Identification and labelling
74	Consumer protection, quality control and voluntary product certification
	<i>Applications for insulating materials</i>
77	Fields of application
79	Insulation in floors and roofs
82	Insulation in walls
84	External basement insulation
85	Avoiding thermal bridges
88	Air as an insulator
89	Insulating materials and thermal performance in summer
91	Insulating materials in other climate zones
	<i>Insulating materials from the ecological viewpoint</i>
93	Sustainability – definition and assessment
93	Ecological dimension
100	Social dimension
103	Economic dimension
105	Sustainable use of insulating materials
	<i>Appendix</i>
107	Trade associations
107	Directory of manufacturers and suppliers
108	Bibliography
109	Index
111	Picture credits