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PENETRATION; FACTORS GOVERNING DISSOLUTION; Chapter 7: Principles of Corrosion Resistance: Hot Gases and Dusts; ATMOSPHERIC PENETRATION AND CONDENSATION; DUSTS: DEPOSITION AND ABRASION; CONCLUSION: PRINCIPLES OF WORKING REFRACTORY CONSTRUCTION; Chapter 8: The Working Refractory Product Line; CLASSIFICATION OF WORKING REFRACTORIES; MAXIMUM SERVICE TEMPERATURES; THERMAL STRESS RESISTANCE; CORROSION RESISTANCE; QUALIFICATIONS FOR WORKING REFRACTORY SERVICE Chapter 9: The Insulating Refractory Product LineAPPLICATIONS AND APPLICATION CRITERIA; CLASSIFICATION OF INSULATING REFRACTORIES; PHYSICAL FORM AND INSTALLATION OF LININGS; Chapter 10: Refractory Practice; REFRACTORY QUALIFICATIONS IN REVIEW; REFRACTORY PRACTICE FROM QUALIFICATIONS; CATALOG OF REFRACTORY PRACTICE; Chapter 11: Design Properties: Thermal and Electrical; REVERSIBLE THERMAL EXPANSION; PERMANENT DEFORMATION; SPECIFIC HEAT; THERMAL CONDUCTIVITY; Chapter 12: Design Properties: Mechanical; ELASTICITY AND PLASTICITY: CERAMICS AS A MODEL; MECHANICAL CHARACTERIZATION OF REFRACTORIES ILLUSTRATIVE MECHANICAL PROPERTIES OF REFRACTORIESChapter 13: Refractory Manufacture; OVERVIEW: CONSOLIDATED FLOW DIAGRAM FOR REFRACTORIES; FROM RAW MATERIALS TO FORMING; Chapter 14: Refractory Installation and Maintenance; STRUCTURAL ENGINEERING; MASONRY CONSTRUCTION; INSTALLATION OF MONOLITHICS; Chapter 15: Conclusion; HISTORICAL PERSPECTIVES REVISITED; PATENTS; References; Refractory Patents; Index

Sommario/riassunto

Encompasses the entire range of industrial refractory materials and forms: properties and their measurement, applications, manufacturing, installation and maintenance techniques, quality assurance, and statistical process control.