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Chapter 5. Heat treatment of grey cast iron; HEAT TREATMENT; SURFACE HARDENING; FLAME HARDENING OF MALLEABLE IRONS; WELDING OF CAST IRON; SOLDERING OF CAST IRON; Chapter 6. Internal casting stresses; CAMBER IN CASTINGS; THERMAL STRESS CRACKING; CONTRACTION ALLOWANCES; DIMENSIONAL TOLERANCES Chapter 7. Components with high local loadings FURNACE WHEELS AND ROLLERS AT HIGH TEMPERATURES; FLYWHEELS; DIE BLOCKS FOR COLD FORMING AND HOT FORMING; INTERFERENCE AND SHRINKAGE FITS; Chapter 8. Cast iron beams and columns; BEAMS; COLUMNS; PIPES, CYLINDERS AND PRESSURE VESSELS; Chapter 9. Application of specifications and data to design; TENSILE STRENGTH; MODULUS OF ELASTICITY; MACHINABILITY; MACHINABILITY AND ANNEALING; HARDNESS; IMPACT STRENGTH; FATIGUE RESISTANCE; WEAR AND HARDNESS; CORROSION AND ABRASION; DESIGN STRESSES AND FACTORS OF SAFETY Appendix: Standard specifications for grey, nodular and malleable cast iron Index

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### Sommario/riassunto

Cast Iron: Physical and Engineering Properties describes the importance of iron and its properties, as well as the process of casting in the different fields of engineering. The book covers topics such as the mechanical, physical, and electrical properties of iron and the different tests under which it is subjected; the effects of heat treatment on gray cast iron; and the resistance of cast iron to heat and stress. Topics also include internal casting stresses; cast iron beams and columns; and the application of the specifications for cast iron to design. The text is recommended for metallurg

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