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Phenolic Resins

Chemistry, Applications, Standardization,
Safety and Ecology

2nd Completely Revised Edition



Springer



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Phenolic Resins

The salient and versatile features of phenolic resins provide favorable comparisons between them and other thermosetting resins as well as thermoplastic products: thermal behavior; high strength level; long term thermal and mechanical stability; fire, smoke and low toxicity characteristics; electrical and thermal insulating capabilities; cost performance characteristics. The technical content of the book describes significant new phenolic resin chemistry, transformations and recent mechanistic pathways of resole and novolak cure. A vastly expanded treatment of selected application areas consists of wood composites, insulation/textile felts, molding compounds, paper/fabric impregnation, foundry, abrasives, friction and refractory. New applications with up-to-date developments include high performance and advanced composites, imaging/photoresist and carbon/graphite areas. Also included in detail: Standardized test methods important for ISO 9001 ff certification.

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