

## Low Cost Solutions for High Performance Powder Metallurgy Parts

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### Abstract

Sinter-hardening is a cost effective method that enables sintering and hardening in one continuous step. By producing the desired microstructure without secondary quench-hardening operations, powder metallurgy parts manufacturers can create high performance components that are competitive with wrought products. Recent powder manufacturing technology has led to the development of highly compressible alloys with excellent hardenability. This presentation will review methods for quantifying hardenability (ideal diameter calculations and CSCT diagrams) as well as focus on the performance capabilities of two commercially available sinter-hardening powders.