



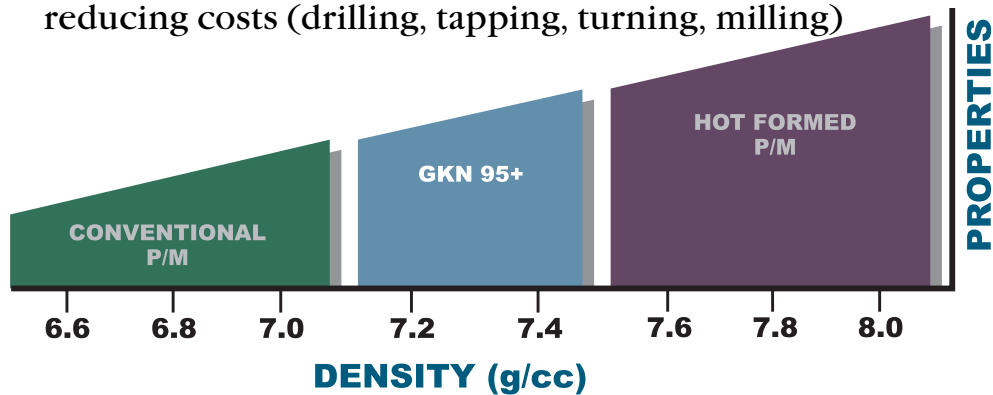
GKN 95+ GEARS

The Most Economical Route to Higher Density Gears

Superior Properties for High Performance Gears

- ◆ Engineers and designers often need better properties than are obtained with conventional P/M materials as a substitute for certain wrought steel parts or ferrous castings.
- ◆ Since all mechanical properties improve with density, it follows that P/M parts with high density are required for many high performance applications.
- ◆ Improved density/performance can be achieved by multiple P/M processing (repressing, coining, resintering) or infiltration, but this adds considerable cost to the part.
- ◆ The GKN 95+ material/process achieves these improvements economically through a unique version of the press and sinter method.

- Unique and innovative warm compaction technology used to achieve high density
- Economy results from utilizing cost effective single press and sinter
- Superior performance has enabled replacement of forging and machined wrought gears
- Higher green strength permits parts to be fixtured and machined in the green, non-sintered condition, further reducing costs (drilling, tapping, turning, milling)



See reverse for more →

EXPECT > MORE

GKN 95⁺

Product Advantages

Precision: Excellent dimensional control

Durability: Long life for a given weight

Uniformity: Control in part-to-part consistency

Quality: No seams, folds or flash

Design Flexibility: Through holes are possible, as well as fine features

Net Shape Capability: Minimal, if any, final machining required

Secondary Operations Enhancement: Machining, heat treating/case hardening, welding, and plating are improved

Material Property Examples

GKN 95 ⁺ /SFH	
Macrohardness (apparent)	45 HRC
Microhardness (converted)	60 HRC
UTS (MPA)	970
Fatigue Strength (MPA)	350
Elongation	1%
RCF @ 1400 (MPA) N 90%	6.0 x 10⁶ cycles

For further information on using P/M technologies for your gear applications, call 1-248-371-0800; e-mail: info@gknsintermetals.com