

**S1001** is a highly compressible, water-atomized steel powder specifically designed for high density, high strength powder metallurgy and powder forging applications. When used in forging/ sintering applications, it can be single pressed to 7.2 g/cm<sup>3</sup> or repressed to densities up to 7.4 g/cm<sup>3</sup> and provides higher strength, higher density P/M parts. The manganese level of **S1001** is precisely controlled to provide optimal heat-treated properties without sacrificing compressibility. S1001 can be used with existing tooling designed for conventional water-atomized powders.

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## TYPICAL APPLICATIONS

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In addition to the PM applications, S1001 is used in many industries for applications such as:

- Filler metal in welding applications
- Filler metal in resins and polymers
- Cold casting
- Rust effects
- Magnetic Powder
- Feed additive (Iron Fortification)

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## CHEMICAL ANALYSIS

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### Typical Data

Fe	> 99.4
Mn	0.18
S	0.01
O	0.09
C	0.004

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## PHYSICAL PROPERTIES

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### Particle Size Analysis

U.S. mesh	+60	+100	+325	-325	A.D. g/cm <sup>3</sup>	Flow Rate sec/50g	Density g/cm <sup>3</sup>
µm	+250	+150	+45	-45	2.95	26	7.10
	Trace	10%	67%	23%			*@43,5 tsi @600 MPa

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## DISCLAIMERS

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All information, recommendations and suggestions in this document are based on sources believed to be reliable; however, it is the user's responsibility to determine safety, toxicity and suitability of this product in their own application.

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