

IRON100

IRON100 is a high green strength reduced iron powder specifically manufactured for low to medium density P/M applications, resin casting, and rough magnetic paints.

FEATURES AND BENEFITS

High Consistency	A stable ore base and statistically controlled manufacturing process assure lot-to-lot consistency.	<ul style="list-style-type: none"> Improves part consistency Increases productivity Reduces processing cost
High Purity	IRON100 is produced from ore, not scrap, assuring a consistently pure product	<ul style="list-style-type: none"> Assures consistency of pre-mix chemistry. Improves compressibility Extends tool life Promotes rapid sintering
High Green Strength	Surface morphology assures powder compacts of good structural integrity.	<ul style="list-style-type: none"> Improves thin section morphology Facilitates green part handling
Low Growth Characteristic	The high purity and large specific surface area of IRON100 allow rapid sintering and high dimensional control.	<ul style="list-style-type: none"> Allows close-to-die design Reduces sintered dimensional variation Improves dimensional Control of infiltrated parts.

PHYSICAL AND CHEMICAL PROPERTIES

Chemical Analysis (wt %)

C	0.030
O	0.20
S	0.006
P	0.025
Mn	0.008
Cr	0.05
Ni	0.05
Si	0.03
Cu	0.02
Mo	0.003
Fe	99.5+

Apparent Density	2.52 g/cm ³
Flow rate	29.00 sec/50g

Typical Screen Analysis

U.S. mesh	Microns	Wt %
70	+212	Trace
100	-212 +150	2.5
140	-150 +106	8
200	-106 +75	22
230	-75 +63	17
325	-63 +45	20
-325	-45	30.5

+ : stays over/ is larger than

- : Passes through/ is smaller than

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