ADVANTAGE
METAL POWDERS, INC.

Advantage Metal Powders, Inc.
44 Spleen Road
Ridgway, PA 15853
Phone: 814-772-5363
Fax: 814-772-5353
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LABORATORY DATA SHEET

CUSTOMER : ADVANTAGE METAL POWDERS
44 SPLEEN RD
RIDGWAY, PA 15853

ATTENTION:

DATE: 05/04/2016
LOT NUMBER: 30318
MPIF#: FC-0205
CUSTOMER CODE: AMP-4.5
REVISION:
QUANTITY: 1,011.00
PACKAGING: 500 LB DRUM
PO NUMBER:

PHYSICAL PROPERTIES

SCREEN ANALYSIS - MESH%	
+20	0.0
+40	0.0
+60	0.6
+80	3.3
+100	6.0
+140	19.2
+200	22.7
+325	27.0
-325	21.2
TOTAL	100.0

	ACTUAL	MIN	MAX
AD	3.16	3.05	0.00
FLOW	32.20		0.00

COMPOSITION %

100.000% AMP REMILL
0.000%
2.000% COPPER
0.500% GRAPHITE
0.750% LUBE
0.000%
0.000%
0.000%
0.000%
0.000%

CHEMICAL ANALYSIS %

	ACTUAL	MIN	MAX
FE			
TOTAL CARBON			
MOLYBDENUM			
CARBON	0.560	0.400	0.600
SINT CARBON			
PHOSPHOROUS			
SULFUR	0.007		
CHROME			
LUBRICANT	0.757	0.700	0.000
COPPER			
NICKEL			
ZINC ST.			
TIN			
ZINC			
MANGANESE			

GREEN PROPERTIES

		ACTUAL	MIN	MAX
COMPACTING PRESSURE (TSI)	:	39.2	0.0	42.0
GREEN DENSITY (G/CC)	:	6.84	0.00	0.00
GREEN STRENGTH (PSI)	:	1,489.00	1,100.00	0.00

SINTERED PROPERTIES

		ACTUAL	MIN	MAX
SINTERED DENSITY (G/CC)	:	6.73	0.00	0.00
DIMENSIONAL CHANGE (%)	:	0.50	0.48	0.58
TRS (PSI)	:	117,997	100,000	0
HARDNESS (HRB)	:	74	70	0

TEMPERATURE (F)	:	2,050
ATMOSPHERE	:	100% N2
TIME (MIN)	:	20

SIGNED :

Kristie Brumberg