

Advantage Metal Powders, Inc.  
 44 Spleen Road  
 Ridgway, PA 15853  
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### LABORATORY DATA SHEET

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

DATE : 06/11/2021  
 LOT NO: 49061  
 MPIF#: FN-0208  
 CUST CODE: AMP-5  
 REVISION:  
 QUANTITY: 47,739.00  
 PACKAGING: 3000 BULK GLUED  
 PO NUMBER:

PHYSICAL PROPERTIES	COMPOSITION %	CHEMICAL ANALYSIS %		
SCREEN ANALYSIS - MESH%	96.450% AMP REMILL	<u>ACTUAL</u>	<u>MIN</u>	<u>MAX</u>
+60 0.3	0.000%	FE		
+100 8.9	2.000% NICKEL	TOTAL CARBON		
+325 67.0	0.800% GRAPHITE	MOLYBDENUM		
-325 23.8	0.750% LUBE	CARBON	0.815	0.700 0.000
TOTAL 100.0	0.000%	SINT CARBON		
	0.000%	PHOSPHOROUS		
	0.000%	SULFUR	0.010	
	0.000%	CHROME		
	0.000%	LUBRICANT	0.743	0.700 0.000
		COPPER		
<u>ACTUAL</u> <u>MIN</u> <u>MAX</u>		NICKEL		
AD 3.14 3.00 0.00		ZINC ST.		
FLOW 36.70 40.00		TIN		
		FLOGARD		
		MANGANESE		
		COBALT		


### GREEN PROPERTIES

	<u>ACTUAL</u>	<u>MIN</u>	<u>MAX</u>
COMPACTING PRESSURE (TSI) :	35.2	0.0	42.0
GREEN DENSITY (G/CC) :	6.84	0.00	0.00
GREEN STRENGTH (PSI) :	1,863.00	1,100.00	0.00

### SINTERED PROPERTIES

	<u>ACTUAL</u>	<u>MIN</u>	<u>MAX</u>
SINTERED DENSITY (G/CC) :	6.79	0.00	0.00
DIMENSIONAL CHANGE (%) :	0.15	0.14	0.24
TRS (PSI) :	115,811	95,000	0
HARDNESS (HRB) :	81	70	0

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

SIGNED : 

Nicholas Tomblin  
 Lab Supervisor

06/11/2021

DATE SIGNED