BRUSH WELLMAN

ENGINEERED MATERIALS

MATERIAL CERTIFICATION

Customer: General Services Administration
Stockpile Acquisitions Div.
Room 5207, Attn: R. A. Talbott
18th & F Streets, N.W., Washington, DC 20405

Date: March 26, 1984
S.O.#: EMA-202
P.O.#: GS0083-DXXC-0006
Specification: P110a-R, Grade A, Type I

Material Description:

Lot No. 3056, One (1) Beryllium Metal Hot Pressed Block,
Gross weight = 3218 lbs.
Net weight = 2676 lbs.

CHEMICAL COMPOSITION: (WT. %)

ELEMENT	3056 Top	3056 Bot.		
Be	99.6	99.3		
BeO	.8	.7		
Fe	.06	.06		
C	.05	.06		
Al	.02	.02		
Mg	.01	.02		
Si	.02	.02		
S	-.01	-.01		
U	-.01	-.01		
Ni	-.01	-.01		
Cr	-.01	-.01		
Mn	.01	.01		
Cu	-.01	-.01		
Ti	-.01	-.01		
BATCH NO.				
OTHER ELEM. EA.				
OTHERS TOTAL				

MECHANICAL PROPERTIES

DIR.	FTU (psi) ksi	FTY (psi) ksi	% EL	Yld./Ult.	
TOP:					
Long.	49.4	33.6	3.6	.68	Room
Long.	49.3	33.1	3.8	.67	Room
Trans.	52.9	33.7	5.4	.64	Room
Trans.	53.2	33.7	5.6	.63	Room
Trans.	15.3	---	10.5	---	1200°F
BOT.					
Long.	50.7	34.7	4.0	.68	Room
Long.	51.6	35.3	4.1	.68	Room
Trans.	56.5	36.1	7.1	.64	Room
Trans.	55.1	35.0	6.7	.64	Room
Trans.	16.1	---	12.9	---	1200°F

DENSITY ~~gm/cc~~ Theoretical
99.7%

AVG GRAIN SIZE: (Microns)

	Avg.	Max.
Top	11.2	40
Bot.	10.6	33

RADIOGRAPHIC INSP. PER
P110a-R

PENETRANT INSP. PER
MIL-I-6866B

ADDITIONAL INFORMATION:
Ultrasonic inspection per P110a-R.

X-ray No. G-2391

This is to certify that the above material satisfies the requirements of Specification see above, Drawing _____ Purchase Order see above and was removed from Pressing No. 3056.

BRUSH WELLMAN INC.
QUALITY CONTROL

R. P. Garner

CC:
Shipping (3) Sales (1) File (1)

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