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Customer: Painful Pleasures	Date: 09/10/2019
PO#: Verbal~CJ	Eagle Sales Order No.: 18852
	Eagle Stock No.: 2699
Material: Niobium Round Bar 99.5% min	Mill Heat/Lot/Batch No.: Mill Batch No.: FM-BN-16081565
Size: 0.250" Dia +/-0.004 x 72"lg	Specification: ASTM-B-392 RO4210 Type 2
	Annealed
Quantity: 4 Pcs.	Notes: DFARS Compliant (Not a Specialty Metal)
	Origin: China

Certificate of Mill Chemical and Physical Test Results

Chemical Properties:

■ **Chemical Analysis:**

Chemical Content (MAX PERCENT) Nb Remainder			
Element	Content	Element	Content
C	0.003	N	0.002
O	0.005	H	0.0003
Zr	0.004	Ta	0.04
Fe	0.002	Si	0.001
W	0.005	Ni	0.0003
Mo	0.003	Hf	0.003
Ti	0.0004	Nb	balance

Brinell Hardness: 73

Mechanical Properties:

Mechanical Properties		
Tensile Strength Rm (Mpa)	Yield Strength Rp0.2 (Mpa)	Elongation at Break A (%)
168	107	30

Eagle Alloys Corporation certifies that the certificate supplied for this purchase order is authentic and true to the original Material Certificate document heretofore delivered to Eagle Alloys Corporation. This certification is advisory only and is not a warranty.

William Bartow QA

Dated: 09/10/2019 The liability of Eagle Alloys Corporation is limited to the cost of the materials in question.