

MOLYBDENUM ARC-CAST PRODUCTS

Number PD-7022 Issue 1-10/08/2021

MOLYBDENUM ALLOY AFB Arc-Cast Forging Billet

Description of Product

This specification covers carbon-deoxidized molybdenum wrought forging billets produced from ingots consolidated by the H.C. Starck consumable electrode vacuum-arc-casting process.

Chemical Characteristics¹⁾

(Mass fraction in % [cg/g]; ppm [µg/g])

Mo(By Difference)	min.	99.95 %	6
*O	max.	0.002 %	6
*N	max.	0.002 %	6
Ni	max.	0.002 %	6
Fe	max.	0.008 %	6
Si	max.	0.008 %	6
С	max.	0.030 %	ó

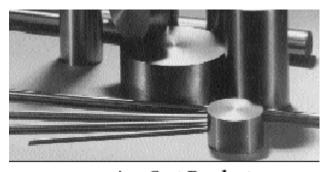
^{*}Unless method of analysis is agreed upon, deviations from these limits alone shall not be cause for rejection.

Mechanical Properties

The billets will be supplied in the recrystallized condition, with a maximum hardness of 200 BHN (10 mm ball/1500 kg/30 sec.). Material can be supplied in the stress-relieved condition upon request.

Dimensional Tolerance

The diameter of each billet will be uniform along its length within \pm 1/16 inch. Any variation in diameter will be smoothly blended into adjacent areas.



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¹⁾ Information on testing methods on request.



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Surface Condition Billets will be supplied with machined or chemically cleaned surfaces. Minor

surface imperfections revealed by dye penetrant inspection may be removed by conditioning to a maximum depth of 0.090 inch. The internal integrity of all billets will be determined by ultrasonic inspection and shall satisfy H.C. Starck Ultrasonic

Specification No. (latest revision).

IdentificationAll billets will be identified with an appropriate ingot number. Each shipping

container will be marked with the name of the customer and the purchase order

number.

Hazards identification in Advertising (Directive 67/548/EEC Article 26, Directive 1999/45/EC Article 13

and REGULATION (EC) No 1272/2008 Article 48)

none.

Reports A product certification report that details pertinent chemical, mechanical,

structural and physical integrity features will be provided.

Rejection H.C. Starck must receive written notification of rejected material with the reason

for rejection. The right is reserved to inspect rejected material at customer plant for claim validation. The material may be returned only after proper authorization.

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High Performance Metal Solutions

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