

009

INTELCOM 1952  
INTELCOM 2

CENTRAL INTELLIGENCE AGENCY

CLASSIFICATION SECRET/CONTROL - US OFFICIALS ONLY  
SECURITY INFORMATION

25X1

INFORMATION REPORT

REPORT NO [ ]

CD NO.

COUNTRY East Germany

DATE DISTR. 7 August 1952

SUBJECT The Production of a New Copper Alloy at Niederfinow and Hettstedt

NO. OF PAGES 2

DATE OF INFO. [ ]

NO. OF ENCLS. (LISTED BELOW)

PLACE ACQUIRED [ ]

SUPPLEMENT TO REPORT NO.

25X1

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793 AND 794, OF THE U.S. CODE, AS AMENDED. ITS TRANSMISSION OR REVELATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

1. The Niederfinow Metallhuettenwerk is being rebuilt and will be renamed the Kupferwalzwerk, Niederfinow. This plant will work in conjunction with the Walzwerk fuer Buntmetalle, Hettstedt. Both plants are concerned with the production of a new copper alloy. This alloy is at present known as Kuprodur, which is probably a cover name since the term is already in use for an alloy which does not include titanium. The specifications of the new copper alloy are as follows:

- copper
- silicon (1%)
- nickel (2%)
- titanium (about 1 1/2%)

REFERENCE COPY  
DO NOT CIRCULATE

2. The alloy can be tempered like steel by hardening (durch Aushaertung). The blanks are heated to 820° and then chilled in water. The result is a material almost as soft as copper, which can be cut much better than copper, and is particularly suitable for cold rolling and acetylene welding.

3. The following are the strength properties of this alloy:

Brinell hardness kg/mm<sup>2</sup>...soft approx. 65  
tempered " 175  
tempered and strain hardened 175-235  
(ausgehärtet und verfestigt)  
Tensile strength soft approx. 35  
tempered " 65

CLASSIFICATION SECRET/CONTROL - U.S. OFFICIALS ONLY

STATE	<input checked="" type="checkbox"/>	NAVY	<input checked="" type="checkbox"/>	NSRB		DISTRIBUTION							
ARMY	<input checked="" type="checkbox"/>	AIR	<input checked="" type="checkbox"/>	FBI		ORR	Ev	OSI	Ev				

SECRET/CONTROL - U.S. OFFICIALS ONLY

25X1

- 2 -

tempered and strain hardened 85-90

Ductile yield in %... soft 35-28

tempered 23-18

tempered and strain hardened 15-7

4. Some 146 tons of this alloy were supplied in ingots from the Elektrochemisches Kombinat, Bitterfeld, to the ~~Werk für Hartmetalle, Hettstedt~~ <sup>Werk für Hartmetalle, Hettstedt</sup>, between January and the end of February. Part of this material was processed at Hettstedt by the addition of 2% of beryllium. After special heat treatment, strength properties were achieved which were estimated to be greater than those of commercial steel. A plant at Niederfinow is being installed for the cold working of this new copper alloy produced at the Elektrochemisches Kombinat, Bitterfeld, since the plant at Hettstedt is not adequate for present needs. The Niederfinow plant will undertake all further cold rolling of this type of alloy in order to achieve a still greater hardness.
5. Intense interest is being paid to the production and working of these two alloys, which have been found to be particularly suitable for apparatus and equipment necessary in the chemical and shipbuilding industries.
6. It is hoped to cover 70% of the DDR's copper requirements by the end of 1952. The entire production is under strict Russian control, and more than 80% of the total output will probably be earmarked for reparations work; the remainder will go to key industries.

SECRET/CONTROL - U.S. OFFICIALS ONLY