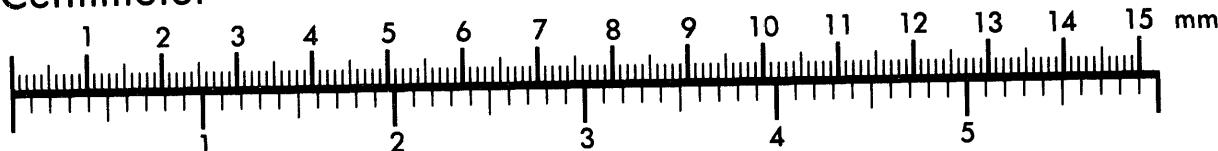




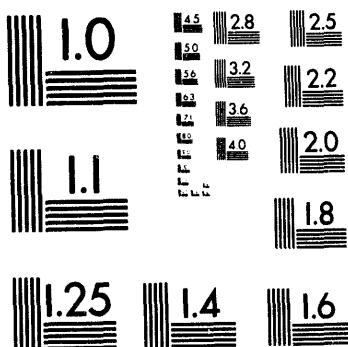
Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202

Centimeter



Inches



MANUFACTURED TO AIIM STANDARDS
BY APPLIED IMAGE, INC.

1 of 1

~~RECLASSIFIED~~

DUH-934

ccs: Dr. K. G. Jones, Washington
Mr. A. S. Weygandt & Mr. E. R. BollerDUH 934
This document consists of 1 Attachment
1 pages and 2 figures.

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
3092 BROADWAY
CLEVELAND 15, OHIO

GRASSELLI CHEMICALS DEPARTMENT

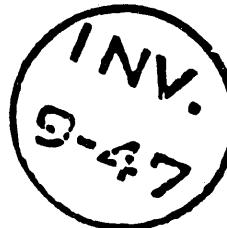
CHEMICAL DIVISION
GENERAL RESEARCH SECTION
EXPERIMENTAL LABORATORY

Dr. K. G. Jones
Box 100
Richland, Washington By W. Parsons Date 1-11-62

Attention: Dr. L. D. Eubank

May 6, 1944

COPY 1 OF 1, SERIES MA



Dear Lowell:

Ref. your telephone call of May 5, 1944 to Mr. Boller.

You will find enclosed the analytical reports that you requested. The certified reports on the aluminum-silicon alloy are for four recent shipments. Most of the tin that we have received has been Straits. Katanga tin is now more available than Straits or Banka.

Our tentative specifications for the dipping baths are as follows:-

COPPER-TIN

45-50% Cu
55-50% Sn
0.1% max. T

TIN

2.0% max. Cu
0.1% max. T
0.1 min. 0.5% max. Al
Balance Sn

ALUMINUM-SILICON

11.5 to 13% Si
0.5% max. Sn
0.5% max. Cu
0.5% max. Fe
0.1% max. T
Balance Al

Classification Cancelled and Changed To

~~RECLASSIFIED~~

By Authority of R. M. Clegg
CG-1-NIP-1, 5/11/44
By J. E. Snyder 5/12/44
Verified By J. A. Snyder 5/17/44

If there is more information that you want, please let us know.

Very truly yours,

J. Snyder

~~MASTER~~~~RECLASSIFIED~~

Attachment

ANALYSES OF TIN AND COPPERStraits Tin from Nathan Trotter & Co.

Their analysis Sn - 99.895%
 Cd - trace
 B - none

Our Spectrographic Analysis

Cd less than 0.0008%
 B - not found

As, Pb, & Bi principal impurities
 Traces of Cd & Fe
 Very slight amounts of In & Na

University of Chicago Analysis

Cd - not found
 B - under $2 \times 10^{-5}\%$
 Rare earth oxides - not found

Banka Tin from Nathan Trotter & Co.

Their analysis Sn - 99.97
 Cd - none
 B - none

Our spectrographic analysis
 Cd - less than 0.0008%
 B - none

Katanga Tin from Nathan Trotter & Co.

Their analysis

Tin - 99.966%
 Sb - nil
 As - .006
 Pb - .012
 Bi - trace
 Cu - .013
 Fe - nil
 Ag - nil
 S - nil
 Co - nil
 Ni - nil
 Cd - nil

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- 2 -

[REDACTED] Our spectrographic analysis

Cd - less than 0.0008%
Li - none
B - none

COPPER

Bars from Chase Brass & Copper

Our spectrographic analysis

Cd - less than 0.0008%
B - none
Fe - trace
Sn, Si, Pb, Mg, Al, Ag, Ca, and Na present in very small amounts.

Punchings of Electrolytic Copper from
Chemical Division of Metals & Ores Division

Our spectrographic analysis

Cd - less than 0.0008%
Li - none

University of Chicago spectrographic analysis

B - not found
Rare earth oxides - not found

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ALUMINUM COMPANY OF AMERICA

2210 HARVARD AVENUE
CLEVELAND, OHIO

CERTIFIED REPORT OF CHEMICAL ANALYSES AND MECHANICAL PROPERTIES

DATE 2-20-46

CUSTOMER: **I. M. Guggenheim & Co.**
Experimental Lab., Guggenheim Chemical Department
3012 Broadway
Cleveland, Ohio

PART NO.

SPECIFICATION NO.

ALCOA ORDER NO. C17. 13223

CUSTOMER'S ORDER NO. Gugg. 4324

PRODUCT

35106

QUANTITY

500 lbs

DATE SHIPPED

2-20-46

ALCOA ALLOY NO. 43

CHEMICAL ANALYSIS
IN PERCENT

| TEST BAR NUMBER | HEAT NUMBER | MECHANICAL PROPERTIES | | | BRIEFL 2 IN. HARDNESS | CU | FE | NI | SI | TI | VANADI |
|-----------------------|----------------|----------------------------------|------------------------------------|-------------|-----------------------------|----|----|----|----|----|--------|
| | | YIELD STRENGTH LB./SQ. IN. | TENSILE STRENGTH LB./SQ. IN. | ELONG. % | | | | | | | |
| .502 | 13-321 | | | | | | | | | | |

.26 .39 12.00 .08

DECLASSIFIED

We hereby certify to the chemical analyses reported herewith and to the fact that they were determined in conformance with the specification listed above, or any exceptions to this specification that have been granted.

ALUMINUM COMPANY OF AMERICA

J. W. Smith
Technical Department

J. D. Eberle
Notary Public
State of Ohio
My Commission Expires June 25, 1946

PA-9-8
101 127



ALUMINUM COMPANY OF AMERICA

220 HARVARD AVENUE
CLEVELAND, OHIO

CERTIFIED REPORT OF CHEMICAL ANALYSES AND MECHANICAL PROPERTIES

DATE 3-24-46

CUSTOMER **H. J. Heinz Company**
General Chemical Dept.
Experimental Lab.
303 Broadway
Cleveland, Ohio

PART NO.

13-311

3-24-46

3-24-46

3-24-46

SPECIFICATION NO.

MECHANICAL PROPERTIES

| TEST BAR NUMBER | HEAT NUMBER | YIELD STRENGTH LB./SQ. IN. | TENSILE STRENGTH LB./SQ. IN. | ELONG. % IN 2 IN. | BRAKE: 2 IN. HARDNESS | CHEMICAL ANALYSIS IN PERCENT | | |
|-----------------------|----------------|----------------------------------|------------------------------------|-------------------------|-----------------------------|---------------------------------|----|----|
| | | | | | | CU | FE | SI |
| 203 | 13-311 | •16 | •41 | 12.18 | .02 | | | |

DECLASSIFIED

We hereby certify to the chemical analyses herewith and to the fact that they were determined in conformance with the specification listed above, or any exceptions to this specification that have been granted.

ALUMINUM COMPANY OF AMERICA

J. DeSobles
Technical Department*J. DeSobles*
Notary Public
State of Ohio
My. 25, 1946



ALUMINUM COMPANY OF AMERICA

2210 HARVARD AVENUE
CLEVELAND, OHIOSHEET OF SHEETSREF ID: A-31
5-6-42

CERTIFIED REPORT OF CHEMICAL ANALYSES AND MECHANICAL PROPERTIES

DATE CUSTOMER
Se Z. Sefaro de Somers & Co.
1092 Broadway Ave.
Grasselli Chemical Dept.
Cleveland, OhioPRODUCT

J-5 24-36

PART NO.
SPECIFICATION NO.ALCOA ALLOY NO. DATE SHIPPED

10-22-43

ALCOA ORDER NO. CUSTOMER'S ORDER NO.

| Ref. No. | HEAT NUMBER | TEST BAR NUMBER | MECHANICAL PROPERTIES | | | | CHEMICAL ANALYSIS IN PERCENT | | | | |
|----------|-------------|-----------------|----------------------------|------------------------------|-------------------|------------------|------------------------------|-----|-------|-----|---|
| | | | YIELD STRENGTH LB./SQ. IN. | TENSILE STRENGTH LB./SQ. IN. | ELONG. % IN 2 IN. | BRINELL HARDNESS | CU | FE | SI | Mn | N |
| 502 | 13-957 | | | | | | .25 | .43 | 12.00 | .08 | |

DECLASSIFIED

We hereby certify to the chemical analyses and mechanical properties reported herewith and to the fact that they were determined in conformance with the specification listed above, or any exceptions to this specification that have been granted.

Sworn to and subscribed before me this day of October, 19 .

[Signature]
Notary Public
John P. Eck, Notary Public
My Commission Expires Oct. 25, 1946

ALUMINUM COMPANY OF AMERICA

Marie B. Brown
Technical Department

ALUMINUM COMPANY OF AMERICA

2210 HARVARD AVENUE
CLEVELAND, OHIOSHEET OF SHEETS

CERTIFIED REPORT OF CHEMICAL ANALYSES AND MECHANICAL PROPERTIES

DATE 23-1-43

CUSTOMER
R. L. Bechtel & Sonnens & Co.
Graesseli Chemical Dept., Experimental Lab.
1092 Broadway Ave.
Cleveland, Ohio

PART NO.

ALCOA ALLOY NO. 13

PRODUCT

33 ingots

QUANTITY

500 lbs.

DATE SHIPPED

20-30-43

SPECIFICATION NO.

ALCOA ORDER NO. Clv. 11615 AD CUSTOMER'S ORDER NO. Cal. 374

| Design | HEAT NUMBER | TEST BAR NUMBER | MECHANICAL PROPERTIES | | | | CHEMICAL ANALYSIS IN PERCENT | | | |
|--------|-------------|-----------------|-------------------------------|---------------------------------|-------------------------|---------------------|---------------------------------|-----|-------|-----|
| | | | YIELD STRENGTH LB./SQ. IN. | TENSILE STRENGTH LB./SQ. IN. | ELONG. % IN 2 IN. | BRINELL HARDNESS | CU | FE | SI | M |
| | 500 | 13-267 | | | | | .36 | .45 | 12.13 | .02 |

DECLASSIFIED

We hereby certify to the chemical analyses and mechanical properties reported herewith and to the fact that they were determined in conformance with the specification listed above, or any exceptions to this specification that have been granted.

Sworn to and subscribed before me this 8 day of

October 1943

Notary Public

JOHN P. ECK, Notary Public
My Commission Expires Mar 25 1946

ALUMINUM COMPANY OF AMERICA

Technical Department

**DATE
FILMED**

8/22/94

END

