



14212 Selwyn Drive
 Montpelier, OH 43543
 (800) 537-4291

Dear Customer,

January 11, 2019

This letter certifies that all rod, cast & turn and ingot produced by Chase Brass and Copper Company (“Chase”) are:

- 1) mercury free;
- 2) PCB free;
- 3) asbestos free;
- 4) free from, and not produced from ozone-depleting chemicals;
- 5) ammonia free;
- 6) chlorides and sulfides free.

All Chase brass rod produced in 2019 meets the ASTM half hard temper (H02) specifications detailed below in Table 1 for the alloys shown. Chase rod products:

- 1) are not subject to weld repair; and
- 2) unless otherwise noted, Chase products are melted and manufactured in the USA (country of origin – USA).

Table 1 – ASTM Standards for Wrought Rod Products

Alloy	ASTM Spec.*	Meets Requirements For
C27450	B124	Chemistry only
	B283	Chemistry only (hot pressed forgings)
	B927	Chemistry & tensile properties
C36000	B16	Chemistry, tensile & hardness properties
C34500	B453	Chemistry, tensile & hardness properties
C35000	B453	Chemistry, tensile & hardness properties
C35300	B453	Chemistry, tensile & hardness properties
C36300	B981	Chemistry, tensile properties
C37000	B124	Chemistry only
	B283	Chemistry only (hot pressed forgings)
	B981	Chemistry & tensile properties
C37700	B124	Chemistry only
	B283	Chemistry only (hot pressed forgings)
	B981	Chemistry & tensile properties
C69300 Eco Brass	B124	Chemistry only
	B283	Chemistry only (hot pressed forgings)
	B371	Chemistry & tensile properties
All	B249	Dimensional tolerances

* English/Metric version of standard shown

Mitsubishi / Kobe Steel / Toray Industries statement –Chase Brass does not purchase any products manufactured by Mitsubishi, Kobe Steel or Toray Industries.

Conflict Minerals statement (Wall Street Reform and Consumer Protection Act signed in July 2010) – The brass rod alloys supplied by Chase do not contain any Conflict Minerals necessary for the functionality or production of those alloys.

REACH Declaration – Chase Brass maintains an updated copy of REACH declaration information on the company webpage www.chasebrass.com and Chase SDS product sheets also available on the webpage.

Proposition 65 Statement - Chase Brass maintains an updated on the company webpage www.chasebrass.com and Chase SDS product sheets also available on the webpage.

Chase leaded brass products also meet:

- 1) DFARS compliance according to The Berry Amendment, United States Code Title 10 Section 2533a, Clause 252.225-7008, *Restriction on Acquisition of Specialty Metals*
- 2) RoHS European Commission Directives on the restriction of hazardous substances in electrical and electronic equipment
 - a. **RoHS: 2002/95/EC** Annex item 6 showing an exemption for leaded brass rod containing less than 4% lead;
 - b. **RoHS2 2011/65/EC** Annex III Exemption 6(c) 6 showing an exemption for copper alloys containing up to 4% lead;
 - c. **RoHS3: 2015/863** addition of four phthalate substances to RoHS2: No phthalate substances are used in brass manufacturing; Annex III
- 3) End-of-Life Vehicles: European Commission Directive 2000/53/EC: Annex II dated 9/20/05, item 3 showing an exemption for leaded brass rod containing less than 4% lead.
- 4) European Union Rule 76/769/EEC prohibiting the use of deca BDE (deca bromo diphenyl ether), PFOS (perfluorooctane sulfonate) and PFOA (perfluorooctanoic acid) in brass rod production.
- 5) GADSL (Global Automotive Declarable Substance List) calls out a lead maximum content of 0.1% but references Directive 2000/53/EC for regulatory purposes which exempts lead up to 4% (see above).

Special notes:

1. **Chase C36000 hardness control:** Chase C36000 drawn rod products meet all half hard (H02) temper hardness requirements, unless tensile strength is specified by the customer or the latest revision of ASTM B16.
2. **Chase C36000 Thread Roll Quality:** ASTM B16 defines thread roll quality temper, compared to half hard temper specifications, as having:
 - a. lower minimum tensile strength for rod sizes > 0.500" to 1.000" regardless of shape;
 - b. lower hardness range for round rod sizes 0.500" to 1.000".
 - c. Chase half hard temper rod in those categories overlap the thread roll quality requirements and therefore meet the thread roll temper requirements also.
3. **Chase Cast & Turned products:** Cast & turned products (5.000 – 10.000" diameter) meet the ASTM B16 chemistry requirements for C36000 and ASTM B124/B981 chemistry requirements for C37700 Cast & turned products do not have any specified Rockwell hardness or mechanical property requirements.

Stress-Relieving:

When stress relieving is specified for leaded brass products, material is heat treated at 525⁰ F for 75 minutes at temperature and air-cooled. NOTE: C69300 (Eco Brass) is not stress relieved.

ISO 17025 - Laboratory Accreditation:

Our laboratory is not accredited to ISO 17025, but is part of our ISO 9001 certified quality system. Listed below is the **scope of supply** and tests that are performed in our laboratory and the ASTM standards controlling our test methods (if applicable).

TEST TYPES

Spectroscopy

- | | |
|------------------------|--|
| 1. X-ray Fluorescence: | Traceable to known certified standards |
| 2. Optical Emission: | Traceable to known certified standards |
| 3. ICP Emission: | Traceable to known certified standards |

Hardness

- | | |
|--------------|----------|
| 1. Rockwell: | ASTM E18 |
|--------------|----------|

Mechanical Properties

- | | |
|-------------|---------|
| 1. Tensile: | ASTM E8 |
|-------------|---------|

Mercurous Nitrate (Residual Stress Evaluation)

When specified for leaded brass products, Mercurous Nitrate testing is completed to determine residual stress levels according to ASTM B154. Samples taken after stress relieving at Chase are submitted to a third-party A2LA-accredited commercial laboratory for testing. After testing, certified test reports are sent to the customer requesting the test.

EN10204 Certifications

Our quality system general test reports (Code 80) meet the requirements of EN10204:2004 section 2.1. If EN10204 section 3.1 certifications are required, they are only met by our certification codes 81, 82, 83, 84 and 85 where actual test values are provided.

ISO 9001 Registration:

Chase Brass has been an ISO-registered company since February 1996 and now certified to ISO9001: 2015 valid to May 18, 2020 as shown on the attached UKAS certification.

The attached proof of ISO 9001 registration is sufficient to meet the requirement "evaluate and select suppliers based on their ability to supply product...". We do not distribute copies of our Quality Manual because of the confidential information it contains. However, in addition to the attached ISO certification, the following is provided to satisfy quality system questions on our organizational structure:

<u>Name of ISO contact:</u>	Larry Muller: Senior Technical Advisor
<u>President:</u>	Devin Denner
<u>VP Sales:</u>	Tom Christie, reports to the President
<u>VP Mfg.</u>	Ed Williams, reports to President
<u>VP Supply Chain:</u>	Phil Moody, reports to President
<u>Production Scheduler:</u>	Jennifer Zuver, reports to the Director Supply Chain
<u>Quality Manager:</u>	Jack Horner, reports to VP Manufacturing
<u>Senior Tech. Advisor.:</u>	Larry Muller, reports to VP Manufacturing

If you need any additional information, please call or e-mail me at jhorner@chasebrass.com.

Sincerely,



Jack Horner
Quality Manager

BUREAU VERITAS
Certification



CHASE BRASS & COPPER CO., LLC

14212 SELWYN DRIVE
MONTPELIER, OH 43543 USA

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

MANUFACTURE OF BRASS ALLOY ROD AND FORGINGS

Original cycle start date:	February 11 1996
Expiry date of previous cycle:	May 18 2017
Certification / Recertification Audit date:	March 17 2017
Certification / Recertification cycle start date:	May 18 2017
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on:	May 18 2020
Certificate No. US011716	Version: 2 Revision date: October 10 2018

Signed on behalf BVCH SAS – UK Branch

Certification body address: **5th Floor, 66 Prescott Street, London E1 8HG, United Kingdom**
Local office: **16800 Greenspoint Park Drive, Suite 300S, Houston, TX 77060**

*Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call: **+(800) 937-9311***

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