McMASTER-CARR®
330-995-5500
330-995-9600 (fax)
cle.sales@mcmaster.com

Certificate

Purchase Order	Order Date	Placed By	McMaster-Carr Number	Number of Certificates
P1556915	11/17/2025	Jonathan Wood	6849864-01	1

Line		Product	Ordered	Status	Certificate
4	99040A403	18-8 Stainless Steel Shims, 3/16" ID x 1/4" OD, 0.003" Thick	1 pack	1 pack delivers November 18	280–5722

Your order is subject only to our terms and conditions, available at www.mcmaster.com or from our Sales Department.

Sales Order Number: 438664-09
Lot #: 252520-PPO MFG Lot #: Y09W
Finished Product Code: Z9763
Finished Description: (25/PACK) 188/193 X 245/255 X .003 THK SHAFT FW ST/ST

Raw Material Lot Number: 49554-001
Raw Material Product Code: Z9763-BULK
Raw Material Description: 188/193 X 245/255 X .003 THK SHAFT FW ST/ST

BROWN METALS COMPANY
8635 White Oak Avenue
Rancho Cucamonga, CA 91730
Tel: (909) 484-3124 / (800) 992-5015
Web: www.brownmetals.com | www.sidecuts.com

Certificate of Test / Conformance

Certificate Number: 250864-2

BMC Lot Receipt
23-640

SOLD TO:	SHIP TO:
[redacted]	[redacted]

Sales Order:	305272	**Customer PO:**	NY053707 - 2
Material:	C.R. Stainless Steel	**Job Number:**	382578
Type:	301	**Date Shipped:**	7/9/2024
Finish:	2TR | Ra:10 µin.	**Supplier Reference:**	WY1LB
Size:	.003 X 2.250"	**Supplier Source (1):**	Wieland Rolled Products NA (USA)
No. of Coils:	3	**Melt Mill Source (1):**	North American Stainless (USA)
Net Weight:	348.000#	**Heat Number:**	Y09W

UNS Number:	S30100
Specifications:	ASTM-A-666-24 |
Notes/Exceptions:	This material is certified as AMS5519P(EXC) because of the following exceptions: Material was produced outside the size range as listed in the scope.

MECHANICAL PROPERTIES

Condition/Temper:	Full Hard
Hardness(2):	HV0.5(427) HRC43
Ultimate Tensile Strength(3):	194,000/196,000
Yield Strength @ .2% offset(3):	170,000/171,000
Percent Elongation in 2 inches:	9.0 %
Bend Test:	OK
Corrosion ASTM A262 Pr. E(5):	
ASTM Grain Size:	

CHEMICAL PROPERTIES

C	Mn	P	S	Si	Cr	Ni	Mo	Cu	N	Fe	Pb
.087	.9195	.0305	.001	.3905	17.4245	7.211	.3550	.373	.0335	Bal	.0010

(1) Country of Origin specified in parenthesis. Material complies with **DFARS Sections 252.225-7008 & 252.225-7009 (APR 2020)** if melted in the USA or a qualifying country according to DFARS. (2) Hardness conversion using ASTM-E-140. Measured value reported within parenthesis. (3) Tensile & Yield Strength reported in PSI. (4) If requested, tolerances, camber and other measurement readings are reported in inches. (5) Corrosion ASTM A262 Pr. E may also be referred to as Embrittlement.

Date: July 8, 2024

Jeff Brown
Brown Metals Company Quality Control Clerk

EN 10204:2005 3.1 Certificate. Brown Metals Company does not use mercury in the production of its products. Brown Metals Company is an **AS9100** and **ISO9001** registered company. Please visit **www.brownmetals.com/compliance** for **OSHA, AS9100, ISO9001, SDS, RoHS, REACH,** and other statements of compliance. No welds/weld repairs performed except for oscillate wound coils/spools when agreed upon by the customer. The mechanical and chemical properties on this certificate are derived directly from the manufacturers' Certificate of Test (available upon request). We certify that the information contained on this certificate is a true copy of the data on file and that the material conforms to the specifications listed. This Certificate of Test / Conformance shall not be reproduced except in full. Federal law prohibits the recording of false, fictitious, or fraudulent statements or entries on the certificate and may be punishable as a felony under Federal law.

Original Issue: 7/9/2024 Revised: 7/9/2024 6:54:50 AM Revised By: JMB Version: 24.02.09

The above described product was manufactured, sampled, tested and inspected in accordance with the required specification, including any supplementary requirements or other requirements designated in the purchase order or contract and were found to meet those requirements.

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Raw Material Description: 188/193 X 245/255 X .003 THK SHAFT FW ST/ST

wieland

Wieland Rolled Products North America, LLC, Waterbury, CT

Brown Metals Company
8635 White Oak Avenue
Rancho Cucamonga CA 91730

Your order No.	26113
Date	Jul 8, 2023
Your material No.	301FH003-2TR
Our confirmation No.	**2410000348 001**
Our delivery note No.	2480000876 010
Quantity delivered	4977 LBS
Date	Dec 8, 2023

Inspection certificate 3.1 as per EN 10204 : 2004

Product:
Bare strip

Material:
Wieland P21 SS301

Temper: hard

Dimensions:
Dim A: 0.003 in
Dim B: 25 in
Dim C:
Dim D:

Specification:		Revision/Date of issue:	Temper designation
Chem. Analysis:	ASTM A666	-23	
Mech. parameters:	ASTM A666	-23	FULL HD
Further specifications:	AMS 5519P(EXC)		

ASTM A666-24 Updated 6-14-24 PJP

Remarks:

Alloy: SS301
Photo Etch
Material is certified to AMS 5519(EXC)
due to the following exception: produced
outside thickness range listed in the
scope.
Melted in the USA - DFARS Compliant; HRB, HRC, or HRF converted per ASTM E140 from HV, 15T, or 15N

Coil-No.	WY1LB
Heat-No.	NSY09W - North American Stainless - Heat Y09W
Prod-No.	57000339

Chemical composition as 3.1 EN 10204 : 2004

The sum of the other elements corresponds to what is specified in the chemical standard.

Cu Copper	***Fe Iron***	***Ni Nickel***
P Phosphorus	***S Sulphur***	***C Carbon***
Cr Chromium		

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Raw Material Description: 188/193 X 245/255 X .003 THK SHAFT FW ST/ST

wieland

Brown Metals Company

Your order No.	26113
Date	Jul 8, 2023
Your material No.	301FH003-2TR

Our confirmation No.	2410000348 001
Our delivery note No.	2480000876 010
Quantity delivered	4977 LBS
Date	Dec 8, 2023

Inspection certificate 3.1 as per EN 10204 : 2004

WY1LB.0018_1	427	43	196	171	9
WY1LB.0018_2			194	170	

Further inspections

Test method	Unit	Specified Reference(R) Min.	Specified Reference(R) Max.	Measured	
180° bend test parallel D=4T				Result good	
Ra - arithmetic average roughness Para. and Trans.	µinch	6.0	12.0	5.0	10.0

Method of control of dimensions

Test method	Unit	Specified Reference(R) Min.	Specified Reference(R) Max.	Measured	
Gauge	in	0.00285	0.00315	0.00305	0.00310

Attestation of conformity

As manufacturer we declare that the products described herein comply with the specifications agreed with the purchaser, with the above-mentioned standards, descriptions, quantity and the data indicated in this certificate.

These products have been manufactured under a quality system certified to ISO 9001:2015. Our quality system is audited regularly (ABS Quality Evaluations Certificate No. 30634).

The results of the chemical analysis, of the mechanical/technical and physical tests have been obtained by the certified and/or accredited test laboratory.

Regarding Cd and Pb the shipment is in compliance per RoHS, ELV and WEEE requirements.
Strip and sheet in copper and copper alloys do not contain: Cr(VI) and its compounds CFC, HCFC, PCB, PCN, CP, Mirex, PBB, PBDE, TBBP - A - bis, organic tin compounds, asbestos and Azo-compounds, Hg - analyses on sample show values < 0.0005 % (m/m).

*In the case of several rows per casting number, the first row contains the smallest and the second row the largest measured values of chemical composition.

Glenn Meier (Inspection Representative)
Telephone: +12035975088
e-mail: glenn.meier@wieland.com
Computer-generated inspection certificate

The above described product was manufactured, sampled, tested and inspected in accordance with the required specification, including any supplementary requirements or other requirements designated in the purchase order or contract and were found to meet those requirements.

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Raw Material Product Code: Z9763-BULK
Raw Material Description: 188/193 X 245/255 X .003 THK SHAFT FW ST/ST

Pennsylvania
289 Mifflin Drive
Wrightsville, PA 17368
USA
An Acerinox Group Company

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 851905 4
Customer: 000085 001

Mail To:
WIELAND ROLLED PRODUCTS NORTH AMERICA
OLIN BRASS
215 PIEDMONT STREET
WATERBURY, CT 06720

Ship To:
WIELAND ROLLED PRODUCTS NORTH AMERICA
BRASS DIVISION OLIN CORP.
BALDWIN AVENUE GATE 2
WATERBURY, CT 06720

Date: 5/19/2023 Page: 2
Steel: 301
Finish: 2D
Corrosion: ASTM A262/15 A;180Bend-OK

Your Order: 6600 NAS Order: WN 0135069 01

PRODUCT DESCRIPTION:
S/S COIL, C.R.ANNEALED & PICKLED; UNS 30100
ASTM A240/22a,A480/20a,A666/15; ASME SA240/19,SA480/19,SA666/19
AMS 5901C X MRK; MIL-S-5059D AMD3(X CRN MEAS)
QQS766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:
Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS 1, 2 & 3 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg.by a Quality Mgt.Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DFARs Compliant
Federal law prohibits the recording of false, fictitious,or fraudulent statements or entries on the certificate and may be punishable as a felony under federal law.

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
04Y09W AB	04Y09W A		.0350	37.0000	13,700	COIL		1	SPEC 2005

ANAB, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per ASTM A751/20

HEAT	CM
Y09W	US

MECHANICAL PROPERTIES

Product Id#	Loc	Dir	NMI C thin	NMI C heav	NMI D thin	NMI D heav	Grain No.	A 262 Pr A Pr A
04Y09W AB	F	T	.00	.00	1.00	.00	9.00	OK

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical Dept. Mgr. KRIS LARK 5/19/2023

The above described product was manufactured, sampled, tested and inspected in accordance with the required specification, including any supplementary requirements or other requirements designated in the purchase order or contract and were found to meet those requirements.

Sales Order Number: 438664-09
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wieland

Brown Metals Company

Your order No.	26113	Our confirmation No.	2410000348 001
Date	Jul 8, 2023	Our delivery note No.	2480000876 010
Your material No.	301FH003-2TR	Quantity delivered	4977 LBS
		Date	Dec 8, 2023

Inspection certificate 3.1 as per EN 10204 : 2004

Specified values:							
Parameter tested (in %)	**Cu**	**Fe**	**Ni**	**P**	**S**	**C**	**Cr**
Minimum/Reference(R)							
Maximum/Reference(R)							
Measured values:*							
Heat/Lot No.							
NSY09W	0.373	balance	7.211	0.0305	0.001	0.087	17.4245

Mn Manganese ***Si Silicon*** ***Mo Molybdenum content***
N Nitrogen content

Specified values:				
Parameter tested (in %)	**Mn**	**Si**	**Mo**	**N**
Minimum/Reference(R)				
Maximum/Reference(R)				
Measured values:*				
Heat/Lot No.				
NSY09W	0.9195	0.3905	0.355	0.0335

Mechanical testing

HV0,5 Vickers hardness HV0,5 ***HRC Rockwell hardness HRC*** ***XQURM Tensile Strength Transverse***
XQURP2 0.2% Yield Strength Transverse ***QUA2" Elongation A2" Transverse***

Specified values:					
Parameter tested	HV0,5	HRC	XQURM	XQURP2	QUA2"
Unit			KSI	KSI	%
Minimum/Reference(R)			185	140	8
Maximum/Reference(R)					
Measured values:					
sample number					
WY1LB.0018					

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Pennsylvania
289 Mifflin Drive
Wrightsville, PA 17368
USA
An Acerinox Group Company

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 851905 4
Customer: 000085 001

Mail To:
WIELAND ROLLED PRODUCTS NORTH AMERICA
OLIN BRASS
215 PIEDMONT STREET
WATERBURY, CT 06720

Ship To:
WIELAND ROLLED PRODUCTS NORTH AMERICA
BRASS DIVISION OLIN CORP.
BALDWIN AVENUE GATE 2
WATERBURY, CT 06720

Date: 5/19/2023 Page: 1
Steel: 301
Finish: 2D
Corrosion: ASTM A262/15 A;180Bend-OK

Your Order: 6600
NAS Order: WN 0135069 01

PRODUCT DESCRIPTION:

S/S COIL, C.R.ANNEALED & PICKLED; UNS 30100
ASTM A240/22a,A480/20a,A666/15; ASME SA240/19,SA480/19,SA666/19
AMS 5901C X MRK; MIL-S-5059D AMD3(X CRN MEAS)
QQS766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS 1, 2 & 3 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
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Product Id	Coil #	Skid #	Thickness	Width	Weight	-------Length------	Mark	Pieces	Commodity Code
04Y09W AB	04Y09W A		.0350	37.0000	13,700	COIL		1	SPEC 2005

ANAB, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/20

HEAT	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	PB %
Y09W	US	.0870	17.4245	.3730	.9195	.3550	.0335	7.2110	.0305	.0010

S %	SI %
.0010	.3905

MECHANICAL PROPERTIES

Product Id#	loc	dir	UTS KSI	20C ELONG % -2"	.2% YS 20C KSI	Hard RB	Tail Hard	NMI A thin	NMI A heav	NMI B thin	NMI B heav
04Y09W AB	F	L	117.13	56.62							
04Y09W AB	F	T	111.57	64.84	46.40	85.00	82.50	.00	.00	.00	.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

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