



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

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

Certificate: 592578 2 Mail To:

Ship To:

Date: 4/07/2020 Page: 1

Customer: 007090 001

Steel: 316/316L

Finish: RT

Your Order: P978188842

NAS Order: PN 0114002 04

Heat Treat Code: 58,176

Corrosion: ASTM A262/15 Prac A/E OK

Red Ratio: 5.3 :1

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S31600/S31603 EN 10204 3.1, ASTM A484/19
ASTM A276/17, ASTM A479/19, ASTM A182/19A CHEM ONLY,
ASME SA479/19, ASME SA182/19A CHEM ONLY,
AMS 5648/M, AMS 5653/J, AMS-QQ5-763/D, QQ5:763/F
NACE MR0175/15 (MID RADIUS ONLY), MR0103/15 (MID RADIUS ONLY)
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/17a CL 1 GR B8M
ASME SA193/19 CL 1 GR B8M (EXC PAR 7.3.1)
GRAIN SIZE = 6-8, ASTM A193/19, CL 1 GR B8M (EXC PAR 6.2.1)

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU. RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

P9782534
509356
Load # 49650

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BL0602 5		3.7500		954	144.00	4	1	509356

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
F74B	US	.018	.45	16.63	.33	1.40	2.028	.046	10.59	.028
		S %	SI %							
		.0295	.26							

MECHANICAL PROPERTIES

Product Id	l o c i t y	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BL0602 5	R L	166.0	43.00	86.00	68.00	50.00

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.

Technical
Dept. Mgr.

KRIS LARK

4/07/2020

P.O. # 5691 Part # 02-Four - 80/xs Desc: 2" sch 80/xs sn. 570.738
BORE 316SL

NAS



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

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

Certificate: 592578 3 Mail To:
Customer: 007090 001

Ship To:

Date: 4/07/2020 Page: 1
Steel: 316/316L
Finish: RT
Corrosion: ASTM A262/15 Prac A/E OK
Red Ratio: 5.3 :1

Your Order: P978188842

NAS Order: PN 0114002 04

Heat Treat Code: S8,176

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S31600/S31603 EN 10204 3.1, ASTM A484/19
ASTM A276/17, ASTM A479/19, ASTM A182/19A CHEM ONLY,
ASME SA479/19, ASME SA182/19A CHEM ONLY,
AMS 5648/M, AMS 5653/J, AMS-QQ8-763/D, QQS:763/F
NACE MR0175/15 (MID RADIUS ONLY), MR0103/15 (MID RADIUS ONLY)
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/17a CL 1 GR B8M
ASME SA193/19 CL 1 GR B8M(EXC PAR 7.3.1)
GRAIN SIZE = 6-8, ASTM A193/19, CL 1 GR B8M(EXC PAR 6.2.1)

REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BL0602 7		3.7500		987	144.00	S	1	509356

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) ANAB, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
F74B	US	.018	.45	16.63	.33	1.40	2.028	.046	10.59	.028
		S %	SI %							
		.0295	.26							

MECHANICAL PROPERTIES

Product Id	l o c a t i o n	d i a m e t e r	HB	.2YS	UTS	RA	Elong
			No.	KSI	KSI	%	% 4D
BL0602 7	R L	166.0		43.00	86.00	68.00	50.00

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.

Technical
Dept. Mgr.

KRIS LARK

4/07/2020

P.O. #5691 Part # 02-FOLE_80/XS Desc: 2" SCH 80/XS SN. 5TO. 738 BORE 316 S/S