



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: 521248 1

Customer: 007090 001

Date: 1/20/2020 Page: 1

Steel: 316/316L

Finish: RT

Corrosion: ASTM A262/15 Prac A/E OK

Red Ratio: 3.0 : 1

Your Order: P937078842

NAS Order: PN 0106353 01

Heat Treat Code: 53,803

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S31600/S31603 EN 10204 3.1, ASTM A484/18
ASTM A276/17, ASTM A479/18, ASTM A182/19 CHEM ONLY,
ASME SA479/17, ASME SA182/19 CHEM ONLY,
AMS 5648/M, AMS 5653/J, AMS-QQS-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 SA193/17 CL 1 GR B8M(EXC PAR 7.3.1)
GRAIN SIZE = 6-8, ASTM A193/17, 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
BK4857 2		5.0000		2,635	144.00	1	1	509364

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 A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
C60B	US	.014	.28	16.69	.42	1.41	2.013	.036	10.50	.028
		S %	SI %							
		.0260	.28							

MECHANICAL PROPERTIES

Product Id	l o c a t i o n	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BK4857 2	R L	151.0	39.00	82.00	69.00	58.00

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 DARK

1/20/2020

NAS