



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: 734447 6 Mail To:

Ship To:

Date: 10/29/2021 Page: 1

Customer: 007090 001

Steel: 316/316L

Finish: ST

Your Order: P167296842

NAS Order: PN 0127186 01

Heat Treat Code: 67,186

Corrosion: ASTM A262/15 Prac A/E OK

Red Ratio: 5.3 :1

## PRODUCT DESCRIPTION:

Round Bar, Annealed, Smooth Turned, Cold Finished  
UNS S31600/S31603, EN 10204 3.1, ASTM A484/20b  
ASTM A276/17, ASTM A479/20, ASTM A182/20 CHEM ONLY,  
ASME SA479/19, ASME SA182/19 CHEM ONLY, GRAIN SIZE = 6-8  
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 A320/18 CL 1 GR B8M  
ASME SA193/19 CL 1 GR B8M (EXC PAR 7.3.1)  
ASTMA193/20 CL 1 GR B8M (EXC PAR 6.2.1)

## REMARKS:

COMPLIES W/REQUIREMENTS OF D FAR 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

R:296244  
521661  
Load # 51801

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BM2147 5		3.7500		900	144.00	1	1	521661

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

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
N93B	US	.016	.36	16.75	.31	1.38	2.027	.036	10.64	.026
		S %	SI %							
		.0240	.27							

## MECHANICAL PROPERTIES

Product Id	l o c	d i c t i o n	HB	.2YS KSI	UTS KSI	RA %	Elong % 4D
BM2147 5	R	L	143.0	31.79	81.44	77.32	58.73

Provided by CPA

www.flowconditioner.com, info@cpacl.ca

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

10/29/2021