



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: 767779 1

Customer: 007090 001

Date: 3/23/2022 Page: 1

Steel: 316/316L

Finish: ST

Corrosion: ASTM A262/15 Prac A/E OK

Red Ratio: 18.1 :1

Your Order: P199814842

NAS Order: PN 0130279 01

Heat Treat Code: 69,540

## PRODUCT DESCRIPTION:

Round Bar, Annealed, Smooth Turned, Cold Finished  
UNS S31600/S31603, EN 10204 3.1, ASTM A484/21  
ASTM A276/17, ASTM A479/21, ASTM A182/21 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 BBM(EXC PAR 7.3.1)  
ASTMA193/20 CL 1 GR BBM(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

*E3606191*  
*525422*  
*HT# R64L*  
*Load # 52304*

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BM5231 5		2.0000		957	144.00	1	1	525422

## 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 A751/20

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
R64L	US	.028	.36	16.58	.39	1.36	2.160	.042	10.65	.030
		S %	SI %							
		.0230	.30							

## MECHANICAL PROPERTIES

Product Id	l o c	id HB No.	.2YS KST	UTS KSI	RA %	Elong % 4D
BM5231 5	R L	156.0	36.07	85.96	76.18	55.25

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.

*[Signature]*  
KRIS LARK

3/23/2022