



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: 725649 1    Mail To: \_\_\_\_\_    Ship To: \_\_\_\_\_    Date: 9/24/2021    Page: 1  
Customer: 007090 001    Steel: 316/316L  
Finish: ST  
Corrosion: ASTM A262/15 Princ A/E OK  
Your Order: P161886842    NAS Order: PN 0127182 01    Heat Treat Code: 66,400    Rod Ratio: 14.4 :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 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

2270491  
S25425  
Load # 51608

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BM1056 5		2.2500		1,157	144.00	1	1	525425

ANAB, ISO/IEC 17025, Certificate# L2323  
Chemical Analysis per ASTM A751/20

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

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
N32M	US	.021	.46	16.52	.30	1.26	2.071	.041	10.61	.028
		S %	SI %							
		.0275	.36							

**MECHANICAL PROPERTIES**

Product Id	l o c k	d i a m e t e r	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BM1056 5	R	L	156.0	39.18	87.10	74.07	53.55

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    9/24/2021

*NWS*