



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

107 pcs

Certificate: 642340 1
Customer: 007175 007

Mail To:
ENCORE METALS, DIV. OF RMCL
7470 VANTAGE WAY
TILBURY INDUSTRIAL PARK
DELTA, BC V4G1H1

Ship To:
ENCORE METALS, DIV. OF RMCL
7805 51ST STREET S.E.
CALGARY, AB T2C 2Z3

Date: 11/05/2020 Page: 1
Steel: 316/316L
Finish: RT

Your Order: P121582875

NAS Order: IN 0285444 01

Heat Treat Code: 58,651

Corrosion: ASTM A262/15 Prac A/E OK
Red Ratio: 3.0 :1

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S31600/S31603 EN 10204 3.1, ASTM A484/20
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-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 SA193/19 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
BL1263 0		5.0000		1,546	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 %
F89K	US	.018	.33	16.81	.26	1.33	2.015	.037	10.54	.029
		S %	SI %							
		.0300	.27							

MECHANICAL PROPERTIES

Product Id	l o c a l	d i a m e t e r	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BL1263 0	R	L	142.0	38.00	80.00	72.00	61.00

DEC 01/2020

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

11/05/2020

NAS