



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: 505594 4 Mail To: Ship To: Date: 5/02/2019 Page: 1
Customer: 007175 007 ENCORE METALS, DIV. OF RMCL ENCORE METALS, DIV. OF RMCL
7805 51ST STREET S.E. 7805 51ST STREET S.E.
CALGARY, AB T2C 2Z3 CALGARY, AB T2C 2Z3 Steel: 304/304L
Finish: RT
Corrosion: ASTM A262/15 Prac A/E OK
Red Ratio: 4.7 :1

Your Order: P119196875 NAS Order: PN 0104509 01 Heat Treat Code: 52,943

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS S30400/S30403 EN 10204 3.1, ASTM A484/18
ASTM A276/17, ASTM A479/18, ASTM A182/18 CHEM ONLY,
ASME SA479/17, ASME SA182/18 CHEM ONLY, ASTM F899/12B
AMS 5639/J, AMS 5647/K, AMS-QQS-763/D, QQS:763/F
NACE MR0175/15(MID RADIUS ONLY), MR0103/15(MID RADIUS ONLY)
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/11a CL 1 GR B8
ASTM A193/17, ASME SA193/17 CL 1 GR B8(EXC PAR 5.2)
GRAIN SIZE = 6-8

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

P119196 R154459 509080 C03W 875

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BK3589 9		4.0000		1,056	144.00	2	1	

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 %
C03W	US	.020	.18	18.13	.42	1.38	.350	.088	8.59	.032
		S %	SI %							
		.0245	.24							

MECHANICAL PROPERTIES

Product Id	1 d o i c x	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BK3589 9	R L	178.0	45.00	89.00	68.00	47.00

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 LARK 5/02/2019

NAS