



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  
Customer: 007175 007  
Your Order: P119196875

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

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

MAS Order: PN 0104509 01 Heat Treat Code: 52,943 Red Ratio: 4.7 :1

**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/T, 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 6.2)  
GRAIN SIZE = 6-8

**REMARKS:**

COMPLIES W/REQUIREMENTS OF DEAR 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 |
| BK3589 9   |        | 4.0000   |      | 1,056  | 144.00 | 2    | 1      |                |

*P119196 R154459 509080 C03W 875*

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

ANAB, ISO/IEC 17025, Certificate# I2323  
Chemical Analysis per ASTM A751/14a

**MECHANICAL PROPERTIES**

|            |                   |           |             |            |         |               |
|------------|-------------------|-----------|-------------|------------|---------|---------------|
| Product Id | 1 d<br>o i<br>c r | HB<br>No. | .2YS<br>KSI | UTS<br>KSI | RA<br>% | Elong<br>% 4D |
| BK3589 9   | RL                | 178.0     | 45.00       | 89.00      | 68.00   | 47.00         |

*MNS*

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

5/02/2019

TM/CM OF NIONISIAIDVSTALTEM ENCORECNE :aq pepiavord