



Sandvik Materials Technology

Product Area Tube
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200926032

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www.smt.sandvik.com/nafta

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Sold To: 632580
SANDVIK DE MEXICO
TLALNEPANTLA, EDO MEXICO
Customer Order No: 450888
Sandvik Order No: 81759/17
Work Order/Lot: 524635

Ship To:
GAISA FORWARDING INC
LAREDO TX
Certification Date: 20090819

ASTM A312-08a, ASME SA-312, ASTM A376-06, ASME SA-376, ASME Section II
2007 Edition, 2008 Addenda, NACE MR0175 / ISO 15156
First edition 2003-12-15, (Austenitic)

Hot Finished PROCESS ANNEALED AND PICKLED Seamless Pipe
Type TP316/TP316L (UNS S31600/S31603) Size: 2" SCH 10
Heat: 520252

Material Manufacturer: Pennsylvania Extruded Tube Co. USA

ANALYSIS %

Table with 8 columns: Element (C, Si, Mn, P, S, Cr, Ni, Fe, Mo, Al, Pb), Heat, Prod. Values for each element and heat/production.

Mechanical Tests:

Table with 5 main columns: Yield Strength (0.2%, 1.0%), Tensile Strength (psi, MPa), Elongation (E2, E10, E4d, E5d), Reduction of Area (%). Values for 40400, 278.6, N/A, 85400, 589.0, 46, N/A, N/A, N/A, N/A.

Hardness Test Results: 81HRB, 83HRB
Hydrostatic Test (psi): 1500

Flattening Test per ASTM A999: Acceptable
Tensile Test sample width (1=Full-Size 2=1/2" Strip): 2
This Material complies with DFARS 252.225-7014 & Alternate 1
Corrosion Test per ASTM A262 Pr.E: Acceptable
Country Of Origin: United States
This Material complies with FAR BAA (FAR 52.225-1)
This Material complies with DFARS BAA (DFARS 252.225-7001) and FAR TAA (FAR 52.225-5)
All material subjected to a final solution annealing heat treatment with material at a temperature of 1900 deg. F minimum followed by rapid quenching.
The material has not come in contact with Mercury or Mercury containing compounds.

No welding has been performed on this material.
Material has been manufactured/supplied in accordance with Sandvik Materials Technology Quality Manual-Standard Products Revision 10 dated May 29, 2007. Quality system has been approved to ISO 9001:2000.
Certificate produced in accordance with EN 10203-1 (formerly EN 10204 3.1.B)

Melt Source: AB Sandvik MT, Sweden
Melt Method: Electric Arc Furnace-AOD Refining
This is to certify that the contents of this certificate

Stamp area containing text: 'SANDVIK Y CIAS. S.A. DE C.V.', 'CONTROL DE CALIDAD', '22 Feb 2010', 'FIRMA', 'F426', and a signature.

are correct and accurate as contained in Sandvik's records,
and that all above test results and operations performed are
in compliance with the requirements of the purchase order
and the specification(s) listed above.

Electronically Generated Certificate-Valid without signature
Audrey Kakareka, Quality Engr.
10 (STKA312/376 R28) (32) (US36542)