



Sandvik Materials Technology

Product Area Tube
P.O. Box 1220
Scranton
PA USA 18501
570-585-7500

1545098074

201006125

www.smt.sandvik.com
www.smt.sandvik.com/nafta

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KPT

Plant Location: 982 Griffin Pond Road, Clarks Summit, PA 18411
Sold To: 8442 Ship To:
SWAGELOK MANUFACTURING COMPANY GRANDE PRAIRIE VALVE & FITTING
INDEPENDENCE OH GRAND PRAIRIE AB
Customer Order No: W21083 Certification Date: 20100224
Sandvik Order No: 87039/1
Work Order/Lot: 166645

SWAGELOK SMS-00333(-), ASTM A269-07, ASTM A213-07a, ASME SA213
ASME Section II, 2007 Edition, 2009 Addenda

Cold Finished BRIGHT ANNEALED Seamless Tube
Type TP316/TP316L (UNS S31600/S31603) Size: .125" X .028"
Heat: 507283

ANALYSIS %

Table with 8 columns: Element (C, Si, Mn, P, S, Cr, Ni, Fe, Mo, Cu, 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 in %), Reduction of Area (%). Rows for samples 46410 and 46120.

- Hardness Test Results: 71HRB, 75HRB, 73HRB, 74HRB, 70HRB, 73HRB
Hardness Test Results: 73HRB, 74HRB, 74HRB, 76HRB, 73HRB, 75HRB
Hardness Test Results: 74HRB, 76HRB, 75HRB, 77HRB, 74HRB, 76HRB
Hardness Test Results: 73HRB, 74HRB, 74HRB, 74HRB, 71HRB, 72HRB
Hardness Test Results: 73HRB, 75HRB, 71HRB, 75HRB, 72HRB, 73HRB
Hardness Test Results: 73HRB, 73HRB, 74HRB, 74HRB, 73HRB, 75HRB
Hardness Test Results: 73HRB, 74HRB, 73HRB, 74HRB, 73HRB, 75HRB
Hardness Test Results: 73HRB, 74HRB, 76HRB, 77HRB, 78HRB, 78HRB
Hardness Test Results: 75HRB, 76HRB, 73HRB, 78HRB, 74HRB, 76HRB
Hardness Test Results: 76HRB, 78HRB, 77HRB, 78HRB, 77HRB, 78HRB

Flare Test per ASTM A1016,
No. samples: 26 Result: Acceptable
Flattening Test per ASTM A1016: Acceptable
Tensile Test sample width (1=Full-Size 2=1/2" Strip): 1
This Material does not comply with FAR BAA (FAR 52.225-1)
This Material complies with DFARS BAA (DFARS 252.225-7001) and FAR TAA (FAR 52.225-5)
This Material complies with DFARS 252.225-7014 & Alternate 1
Country Of Origin: Germany
100% Positive Material Identification performed
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.

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No welding has been performed on this material.
Material has been eddy current tested in accordance with
ASTM A450, ASTM A1016 and is acceptable.
Material has been manufactured/supplied in accordance
with Sandvik Materials Technology Quality Manual-Standard
Products Revision 11 dated Nov 09, 2009. Quality system
has been approved to ISO 9001:2008.

Certificate produced in accordance with EN 10204 3.1
(formerly EN 10204 3.1.B)

Melt Source: AB Sandvik MT, Sweden

This is to certify that the contents of this certificate
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 (SWA213/269E SD R10) (10) (KPT)