

SANDVIK

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Sandvik Materials Technology

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201005510

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Sold To: 632580
SANDVIK DE MEXICO
TLALNEPANTLA, EDO MEXICO
Customer Order No: 750906
Sandvik Order No: 90572/21
Work Order/Lot: 54091

Ship To:
GAISA FORWARDING INC
LAREDO TX
Certification Date: 20100219

NACE MR0175 / ISO 15156, First edition 2003-12-15, (Austenitic)
ASTM A312-08a, ASME SA-312, ASTM A376-06, ASME SA-376, ASME Section II
2007 Edition, 2009 Addenda

Hot Finished PROCESS ANNEALED AND PICKLED Seamless Pipe
Type TP316/TP316L (UNS S31600/S31603) Size: 4" SCH 40
Heat: 523416

ANALYSIS %								
	C	Si	Mn	P	S	Cr	Ni	
Heat	.009	.43	1.65	.030	.009	16.78	11.22	
	Fe	Mo	Cu	Al	Pb			
Heat		2.03	.30					

Mechanical Tests:

Yield Strength		Tensile Strength		Elongation in %				Reduction Of Area
0.2%		1.0%		E2"	E10"	E4d	E5d	%
psi	MPa	psi	MPa	psi	MPa	N/A	N/A	N/A
39600	273.1	N/A		88180	608.1	49	N/A	N/A

Hardness Test Results: 79HRB, 82HRB
Hydrostatic Test (psi): 1890

Flattening Test per ASTM A999: Acceptable
Hydro Pressure Test (5-second holdtime), psi: 1890
Tensile Test sample width (1=Full-Size 2=1/2" Strip): 202 Harold
Corrosion Test per ASTM A262 Pr.E, MIL-P-24691 and MIL-P-1144D. No. samples: 1 Result: Acceptable
Country Of Origin: Sweden
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 to below 800 deg. F in less than three (3) minutes.

The material has not come in contact with Mercury or Mercury containing compounds.

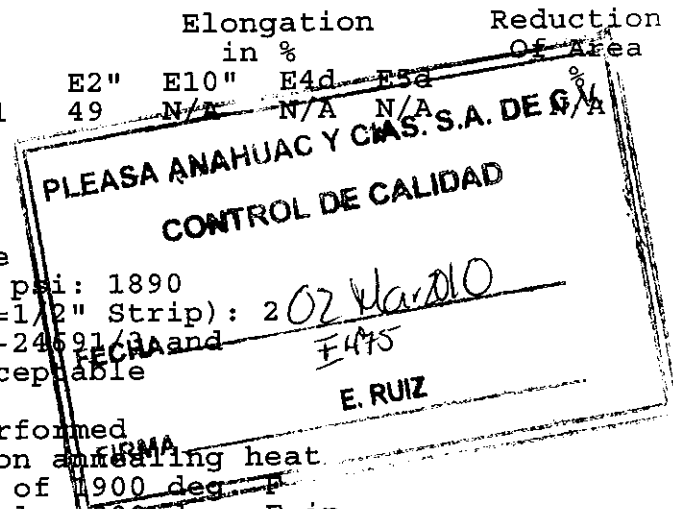
No welding has been performed on this material.

Pipe dimensions in accordance with ASME B36.19M-2004.

The grade 304L and 316L are not covered by ASTM A376 or ASME SA376 specifications. Therefore, these specifications do not apply to these grades.

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 9001:2000.

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



Melt Source: AB Sandvik MT, Sweden

Melt Method: Electric Arc Furnace

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 (A/SA312/376NACE R21) (12) (US36542)