

Feb 11, 2004
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MF

MXVC
Page 1 of 1
No. 200339186

M A T E R I A L C E R T I F I C A T E

Sandvik Materials Technology

P.O. Box 1220, Scranton, PA 18501 PH. (570) 585-7500

Plant Location: 982 Griffin Pond Road, Clarks Summit, PA 18411

Sold To: 632580

Ship To:

SANDVIK DE MEXICO

GAISA FORWARDING INC

TLALNEPANTLA, EDO MEXICO

LAREDO TX

Customer Order No: 450502

Certification Date: 20031104

Sandvik Order No: 14341/1

Work Order/Lot: 512470

ASTM A312-01a, ASME SA-312, ASME Section II
2001 Edition; 2003 Addenda

Hot Finished PROCESS ANNEALED AND PICKLED Seamless Pipe
Type TP316/TP316L (UNS S31600/S31603) Size: 2" SCH 40
Heat: 459887

ANALYSIS %

	C	Si	Mn	P	S	Cr	Ni
Heat	.014	.48	1.64	.034	.010	16.87	11.23
	Fe	Mo	Al	Pb			
Heat		2.01	.003				

Mechanical Tests:

Yield Strength		Tensile Strength		Elongation in %				Reduction Of Area %
0.2%	1.0%			E2"	E10"	E4d	E5d	
psi	MPa	psi	MPa					
43200	297.9	N/A		89600	617.9	49	N/A	N/A

Hydrostatic Test (psi): 2070

Flattening Test per ASTM A530: Acceptable

Tensile Test sample width (1=Full-Size 2=1/2" Strip): 2

Country Of Origin: United States

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.

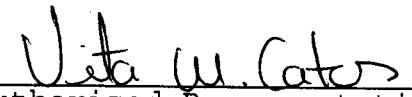
No welding has been performed on this material.

Material has been manufactured/supplied in accordance with Sandvik Materials Technology Quality Manual-Standard Products Revision 6 dated October 9, 2003. Quality system has been approved to ISO 9001:2000.

Certificate produced in accordance with EN 10204 (DIN 50049) 3.1.B.

Melt Source: AB Sandvik Materials Technology, Swe

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.


Authorized Representative

Kurt Revak, Quality Specialist
10 (A/SA312 R13) (10) (RWB)