

857906-3A

outokumpu
high performance stainless steel

Outokumpu Stainless Plate, LLC



Certificate of Analysis and Tests

* RE-CERTIFICATION *

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OUR ORDER 0286423 - 01

HEAT & PIECE 857906-3A 12/22/14

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P575216-423		2/07/14		YOUR ORDER & DATE		TAG# 542289	
ITEM DESCRIPTION							
HEAT & PIECE	857906	-	3A				
WEIGHT			6883				
FINISH			1				
GRADE	316LP	/	316P	UNS-S31603	/	UNS-S31600	
DIMENSIONS	3.000	X	72.000	X	109.000	EXACT	

*** MFG IN NEW CASTLE, IN, USA		FROM SLABS IMPORTED FROM BRITAIN	
AMS 5507F WITH EXCEPTIONS		AMS 5524L WITH EXCEPTIONS	
ASTM A240-14 ASME SA240-13ED		ASTM A480-14B ASMESA480 13ED	
LIST HEAT/PCE/SIZE ON INVOICE		OUTOKUMPU MACH TEST LP020	
NACE MRO175-2009/ISO 15156		NO GRIPPER MARKS	
NO WELD REPAIRS			
ASTM A262-13 PRACTICE A		ASTM A262-13 PRACTICE E	
PRODEC QUALITY			

PLATES & TEST PCS SOLUTION ANNEALED @ 1900 DEGREES FAHRENHEIT MINIMUM. THEN WATER COOLED OR RAPIDLY COOLED BY AIR FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS HOT ROLLED, ANNEALED & PICKLED (HRAP)

MECHANICAL & OTHER TESTS	
HARDNESS HRBW	74
GRAIN SIZE	3
YIELD STRENGTH (PSI)	46821
TENSILE STRENGTH (PSI)	77160
INTERGRANULAR CORROSION	OK
ELONGATION % IN 2"	52.1
REDUCTION OF AREA %	54.1

CHEMICAL COMPOSITION		
CARBON (C)		.018
MANGANESE (MN)		1.47
PHOSPHORUS (P)		.033
SULFUR (S)		.022
SILICON (SI)		.52
CHROMIUM (CR)		16.71
NICKEL (NI)		10.06
COBALT (CO)		.23
COPPER (CU)		.45
MOLY (MO)		2.06
NITROGEN (N)		.05
COLUMBIUM (CB)		.012
TITANIUM (TI)		.002
ALUMINUM (AL)		.007
TIN (SN)		.013
TANTALUM (TA)		.003
PB	(PB)	.001

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE, SUPPLIED, AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATION(S) AND THAT THE RESULTS OF ALL TESTS AND INSPECTIONS ARE ACCEPTABLE.

JAMES DOUBMAN QUALITY ASSURANCE MANAGER

CERTIFICATE IN CONFORMANCE WITH EN10204-95 3.1.B/EN10204-2004 3.1

Outokumpu Stainless Plate, LLC
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