

VILLARES METALS

SUMARÉ PLANT/ HEAD OFFICE
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0791137

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INSPECTION CERTIFICATE

CERT. Nr. 362812

52075
Zfgs.


ACC. TO EN 10204 3.1

CUSTOMER **ASA Alloys Inc.**

INVOICE 4517

PURCHASE ORDER Nr./ITEM

40085303/75046930

VILLARES METALS REFERENCES																	
JOB ORDER Nr. (OS) 1060197			LOT Nr. 1060197			PACKAGE Nr. 1060197/01											
VILLARES GRADE V304XLOF				SIMILAR GRADE AISI304/304L													
SPECIFICATIONS																	
ASTM A182 / 04, ASTM A276 / 04, ASTM A192 / 04																	
MELTING PROCESS Electric Arc Furnace			PRODUCT LINE Hot Rolled			HEAT TREATMENT CONDITION Solution Treated			FINISHING Peeled								
NET WEIGHT 1197.0 kg		QUANTITY 3		PRODUCT Round Bar			DIMENSIONS 5" (in)		LENGTH RANGE 3048 / 5181 (mm)								
CHEMICAL COMPOSITION (% in weight)						HEAT Nr. 0791137											
C	0.015	Si	0.42	Mn	1.81	P	0.034	S	0.028	Co	0.06	Cr	18.00	Mo	0.51	Ni	0.17
Cu	0.48	Ti	< 0.005	Zn	< 0.05	N	0.098										
HARDNESS ACC. TO SPECIFICATION ASTM A370 176 HB																	
VISUAL & DIMENSIONAL INSPECTIONS RESULT: APPROVED																	
ULTRA SONIC TEST ACC. TO SPECIFICATION ASTM A388 RESULT: APPROVED																	
ANTI-MIXTURE TESTING RESULT: APPROVED																	
TENSILE TEST ACC. TO SPECIFICATION ASTM A370 SPECIMEN #: 6396 DIMENSION (mm): 12.66 UNIT: MPA T. STRENGTH LONGITUDINAL: 574 Y. STRENGTH 0.2% LONGITUDINAL: 323 Y. STRENGTH 1.0% LONGITUDINAL: 347 RED. OF AREA LONGITUDINAL (%): 76.8 ELONG. LONGITUDINAL (%): 60.3 Lo = "x" (Square Root (So)): 4.53																	
IMPACT TEST ACC. TO SPECIFICATION EN 10045-1 SPECIMEN #: 6396 TYPE: ISO NOTCH: V TEMPERATURE (°C): ROOM DIRECTION: LONGITUDINAL INDIVIDUAL RESULT 1: 300.0 INDIVIDUAL RESULT 2: 300.0 INDIVIDUAL RESULT 3: 300.0 AVERAGE RESULT: 300.0 UNIT: J																	
GRAIN SIZE ACC. TO SPECIFICATION ASTM E112 RESULT: APPROVED GRAIN SIZE RESULT: 5 ASTM																	
MICROSTRUCTURE RESULT: APPROVED AUSTENITIC MATRIX																	
CORROSION RESISTANCE ACC. TO SPECIFICATION ASTM A262 (PR.B) RESULT: APPROVED																	
HEAT TREATMENT CYCLE CYCLE 1: SOLUTION TREATED TEMPERATURE 1 (°C): 1050 TIME 1 (h): 2.00 COOLING MEDIA 1: WATER																	
MACROGRAPHIC TEST ACC. TO SPECIFICATION ASTM E381 RESULT: APPROVED SEVERITY: S1;R1;C1																	
REMARKS MATERIAL IS FREE OF MERCURY CONTAMINATION. NO WELD REPAIR. MATERIAL ALSO ATTENDS SPECIFICATIONS: ASTM A304 (except stress relieving)																	
SUPPLIER MARK																	
OUR QUALITY MANAGEMENT SYSTEM IS CERTIFIED BY ISO 9001:2008																	

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