



Test Certificate

12400 Highway 43 North, Axis, Alabama 36505, US

Form TC1: Revision 3: Date 7 Feb 2018

Customer: SSAB MEXICO BATALLON SAN PATRICIO 109 LOCAL 403 VALLE OTE SAN PEDRO GARZA GARCIA 66269	Customer P.O.No.: M2066	Mill Order No. 41-533683-01	Shipping Manifest: UR160580
	Product Description: HARDOX 450 ABRASION RESISTANT STEEL PLATE		Ship Date: 19 Jun 18 Cert Date: 19 Jun18
	Size: 6.40 X 2438 X 7315 (MM)		Cert No: 850187729 (Page 1 of 2)
Heat Treat Type: QUENCHED			

Tested Pieces:				Tensiles:					Charpy Impact Tests							BDWTT						
Heat Id	Piece Id	Piece Dimensions	Tst Loc	YS (MPA)	UTS (MPA)	%RA	Elong % 50 200 (mm)	Tst Dir	Hardness	Abs. Energy(J)				% Shear			Tst Tmp	Tst Dir	Tst Siz (mm)	Temp %Shr		
										1	2	3	Avg	1	2	3	Avg					
W8F538	B38	6.47 (DISCRT)	C						462 HBW													
W8F538	B39	6.47 (DISCRT)	C						448 HBW													
W8F538	B40	6.47 (DISCRT)	C						449 HBW													
W8F538	B41	6.50 (DISCRT)	C						445 HBW													
W8F538	B42	6.50 (DISCRT)	C						455 HBW													

Heat Id	Chemical Analysis																			ORGN
	C	Mn	P	S	Si	Tot Al	Sol Al	Cu	Ni	Cr	Mo	Cb	V	Ti	Sn	B	N	Ca	IIW	
W8F538	.18	1.36	.009	.0002	.24	.060	.059	.15	.07	.14	.02	.013	.004	.012	.005	.0014	.0036	.0017	.45	USA

KILLED HOT ROLLED ALLOY STEEL PLATE QUENCHED
 FINISH: PRIMER PAINT
 ACCESSORIES: NONE
 MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT.
 $CEV (IIW) = C + MN/6 + (CR+MO+V)/5 + (NI+CU)/15$
 MTR EN 10204:2004 INSPECTION CERTIFICATE 3.1 COMPLIANT
 NO WELD REPAIR HAS BEEN PERFORMED ON THIS MATERIAL.
 THE E-MAIL ADDRESS FOR MEXICO IMPORT PURPOSES IS MEXICO.CERTIFICATES@SSAB.COM.
 MATERIAL MARKED BELOW WITH AN ASTERISK IS PRODUCED FROM COIL

PRODUCTS SHIPPED:

W8F538 B40	5844791	PCES:	1, KGS:	895.85	W8F538 B40	5844790	PCES:	1, KGS:	895.85
W8F538 B41	5844808	PCES:	1, KGS:	895.85	W8F538 B39	5844538	PCES:	1, KGS:	895.85
W8F538 B39	5844545	PCES:	1, KGS:	895.85	W8F538 B39	5844537	PCES:	1, KGS:	895.85
W8F538 B38	5844630	PCES:	1, KGS:	895.85	W8F538 B38	5844629	PCES:	1, KGS:	895.85
W8F538 B40	5844781	PCES:	1, KGS:	895.85	W8F538 B41	5844810	PCES:	1, KGS:	895.85
W8F538 B41	5844803	PCES:	1, KGS:	895.85	W8F538 B39	5844553	PCES:	1, KGS:	895.85
W8F538 B39	5844546	PCES:	1, KGS:	895.85	W8F538 B41	5844813	PCES:	1, KGS:	895.85
W8F538 B41	5844809	PCES:	1, KGS:	895.85	W8F538 B41	5844797	PCES:	1, KGS:	895.85
W8F538 B41	5844812	PCES:	1, KGS:	895.85	W8F538 B41	5844811	PCES:	1, KGS:	895.85
W8F538 B41	5844799	PCES:	1, KGS:	895.85	W8F538 B41	5844798	PCES:	1, KGS:	895.85
W8F538 B38	5844634	PCES:	1, KGS:	895.85	W8F538 B40	5844780	PCES:	1, KGS:	895.85
W8F538 B41	5844802	PCES:	1, KGS:	895.85	W8F538 B41	5844796	PCES:	1, KGS:	895.85
W8F538 B40	5844785	PCES:	1, KGS:	895.85	W8F538 B40	5844784	PCES:	1, KGS:	895.85
W8F538 B41	5844805	PCES:	1, KGS:	895.85	W8F538 B41	5844804	PCES:	1, KGS:	895.85

(P)	Cust Part #: 1750	WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH, AND MEETS THE REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION	Justin Ward +1 251 662 4400 SENIOR METALLURGIST - PRODUCT
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W8F538	B38	5844644	PCES:	1, KGS:	895.85				W8F538 B38	5844643	PCES:	1, KGS:	895.85						
W8F538	B38	5844633	PCES:	1, KGS:	895.85				W8F538 B41	5844806	PCES:	1, KGS:	895.85						
W8F538	B39	5844554	PCES:	1, KGS:	895.85				W8F538 B42	5844823	PCES:	1, KGS:	895.85						
W8F538	B42	5844822	PCES:	1, KGS:	895.85				W8F538 B40	5844680	PCES:	1, KGS:	895.85						
W8F538	B40	5844681	PCES:	1, KGS:	895.85				W8F538 B40	5844783	PCES:	1, KGS:	895.85						
W8F538	B40	5844782	PCES:	1, KGS:	895.85				W8F538 B41	5844807	PCES:	1, KGS:	895.85						
W8F538	B39	5844536	PCES:	1, KGS:	895.85				W8F538 B39	5844535	PCES:	1, KGS:	895.85						
W8F538	B40	5844789	PCES:	1, KGS:	895.85				W8F538 B40	5844788	PCES:	1, KGS:	895.85						
W8F538	B40	5844779	PCES:	1, KGS:	895.85				W8F538 B40	5844778	PCES:	1, KGS:	895.85						
W8F538	B41	5844795	PCES:	1, KGS:	895.85				W8F538 B41	5844794	PCES:	1, KGS:	895.85						
W8F538	B38	5844640	PCES:	1, KGS:	895.85				W8F538 B40	5844787	PCES:	1, KGS:	895.85						
W8F538	B40	5844786	PCES:	1, KGS:	895.85				W8F538 B39	5844550	PCES:	1, KGS:	895.85						
W8F538	B39	5844549	PCES:	1, KGS:	895.85														

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