

SSAB

Test Certificate

12400 Highway 43 North, Axis, Alabama 36505, US

Form TC1; Revision 4; Date 6 Feb 2019

Customer:

Customer P.O. No.: HOU-10942

Mill Order No.: 41-710501-01

Shipping Manifest: AT381925

Product Description: ABS (2023) GR A / GR B

ASTM A36(19)/A709(21)36/ASME SA36(21)

ASTM A283-C(18)/ASME SA283-C(21)

0.80-0.90% MN, 0.10% MAX S

Ship Date: 16 Jun 23
Cert Date: 16 Jun 23

Cert No: 081118960
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Size: 0.188 X 96.00 X 480.0 (IN)

Heat Id	Piece Id	Tested Thickness	Tensiles				Charpy Impact Tests									
			Tst Loc (KSI)	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Abs. Energy (FTLB)	% Shear	Tst Tmp	Tst Dir	Tst Siz (mm)	BDW/TT Tmp %Shr		
E3F161	C24	0.194 (DISCRT)	L	66	74											
E3F161	C27	0.257 (DISCRT)	L	51	62											

Heat Id	Chemical Analysis											ORGN				
	C	Mn	P	S	SI	Total	Sol AI	Cu	Ni	Cr	Mo		Cb	V	Ti	CEV
E3F161	.05	.86	.011	.002	.29	.026	.025	.25	.10	.13	.03	.003	.002	.022	.20	USA

KILLED STEEL,
MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT.
WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY SSAB AMERICAS BY THE ELECTRIC FURNACE / STRAND CAST PROCESS AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICAN BUREAU OF SHIPPING RULES WITH SATISFACTORY RESULTS.
CEV = C + MN/6
KILLED STEEL, PRODUCED TO A FINE GRAIN PRACTICE
MTR EN 10204:2004 INSPECTION CERTIFICATE 3.1 COMPLIANT
100% MELTED, POURED, AND ROLLED IN THE USA
NO WELD REPAIR HAS BEEN PERFORMED ON THIS MATERIAL.
PRODUCTS SHIPPED:
E3F161 C23 PCES: 12, LBS: 29484 E3F161 C24 PCES: 6, LBS: 14742

(P) Cust Part # :

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH, AND MEETS THE REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION

Jason Thomas

Director Technical Services