



Steel Dynamics®

Flat Roll Group
Columbus Division

1945 Airport Road
Columbus, MS 39701
Phone: 662-245-4200
Fax: 662-245-4297

Metallurgical Certification

Order Number: 363178 Heat: B713605 Sold to: KLOECKNER METALS CORP TX Ship to: KLOECKNER METALS CORP
Order Dimensions: 0.2400X72.0000 (4in) (MIN) HOUSTON, TX 77028 HOUSTON, TX 77028
Ordered Product: A36 "CONVERSION TO"
PRIME HOT ROLLED BAND - PRIME
Part Number: HR .2400X72.0000 A36
All Parts: Customer PO #: HTX-7195304-3 Lead #: S759403 Ship Date: 10/01/2017

Coil Number:	Heat:	C	Mn	P	S	Si	Cr	Cu	Sn	Ni	Cl	Mo	Al	N	V	Nb	Ti	B	Ca	Ceq
17B803468	B713605	.21	.45	.011	.003	.03	.09	.0020	.03	.03	.010	.025	.0063	.003	.001	.002	<.0001	.0018	.298	

Weight: 48,560 lb.

Mechanical Properties:

Yield Strength	49.0 Ksi	338 MPa
Tensile Strength	76.1 Ksi	525 MPa
Elongation	34 %	34 %
N-Value	Not Reported	
Hardness - HRSW	Not Reported	
Direction	Transverse	
Linear Footage	795 ft	242 m
Actual Gauge	.2445 in	6.21 mm

Conversion to - meets chemistry requirements additional testing required

We hereby certify the above is correct as contained in the records of the company. All tests performed according to ASTM standard E8, A370, E18, E415, E1019, E646, E517 and E23 (yield strength determined using 0.2% offset method) or JIS Z2241 or DIN EN10325. All heats are Al-killed and Ca treated.

THIS PRODUCT WAS MELTED AND MANUFACTURED IN THE USA

Certified by:	
Certificate Date:	10/01/2017
	Hot Mill Metallurgical Engineer

Material Certifications for Shipment

November 13, 2017

Bl Num: 81048408

Customer
 Superior Supply & Steel Co.
 P. O. Box 2388
 Sulphur, LA 70664

Ship To
 Superior Supply & Steel HTX
 *7400 Mesa Dr
 WILL CALL - HTX
 Houston, TX 77028-3522

Orders

Order	GA Ord	Width	Length	Description/Part Number	Grade
15484593-1		72	480	Strip Milled Plate 1/4	ASTM A36

Cust PO: 188945-15

Heat: B713605 Mill ID: 17B803468 Vendor: STEEL DYNAMICS COLUMBUS LLC

Certification # 3828680 Issue Date 18-OCT-17

Carbon Equivalent: .30

Chemical Properties									
C	Mn	P	S	Si	Al	B	Ca	Ce	Cr
.21	.45	.011	.003	.03	.025	.0001	.0018	.298	.03
Cu	Mo	N	Nb	Ni	Sb	Sn	Ti	V	
.09	.01	.0063	.001	.03	.0021	.004	.002	.003	

Physical Properties			
Property	YIELD	TENSILE	ELONG
Mill Test	49 KSI	76.1 KSI	34.0 IN 2
Internal Test Head			
Internal Test Middle			
Internal Test Tail			

Charpy Properties					
Property	CHARPY	IMPACT	IMPACT	IMPACT	AVG FT-
Value	SAMPLE	FT-LBS1	FT-LBS2	FT-LBS3	LBS
Internal Test Head					
Internal Test Middle					
Internal Test Tail					

We certify that the listed information is correct as contained in the records of the company and that all results meet the requirements of the specification cited above. All ASME Section II Part A specifications are 2015 Edition. Certified per UG-10. All Charpy tests are at -20 F unless otherwise indicated.

