



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No., Item & Date.: 8055659 000010 2017/09/05	Shipment No. & Date.: 1000253838 2017/09/07	TC No., Date & Time : ESA-427351 2017/09/13 - 14:14:12													
Sold to Customer Name and Address :	Ship to Customer Name and Address:	Customer PO NO./Item: 4507 / 1 BOL NO.: 1000253838 Cust. Part No.: Carrier : CN (USD FUNDS) - CN 136954													
Customer Specification : HR STEEL SHEET Carbon CQ / CS ASTM A1011 CS TY B (2017) Top Semi Critical Surface Improved Shape Temper Roll Gauge type MIN - 0/+ 0.0117 " Coil break considered															
Supplementary Instructions : Test Cert 1:281-903-7112															
Insp T/R : Chemical Analysis	Cust Use : GENERAL MANUFACTURING														
ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-4095 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.															
MEETS EN 10204 3.1 ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ALGOMA.COM															
ALL HEATS FULLY KILLED. HEATS INDICATED WITH (*) FINE GRAINED. HEATS INDICATED WITH (+) Made in Canada for NAFTA duty preference and NAFTA marking purposes															
Dimensions (T x W x L)	Batch No.	Heat No-MS	Quantity	No. of Pcs	Dimensions (T x W x L)	Batch No.	Heat No-MS	Quantity	No. of Pcs						
0.1260 " x 96.000 "	LQI6132	1452D4-54	27,390 LB	1	0.1260 " x 96.000 "	LQI6135	1703D4-54	28,020 LB	1						
*****CHEMICAL PROPERTIES*****															
Heat No. (wt%)	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Al	Nb	V	B	Ti	N
1452D4*	0.06	0.37	0.006	0.003	0.024	0.02	0.02	0.05	0.00	0.024	0.000	0.000	0.0000	0.000	0.0049
1703D4*	0.06	0.36	0.007	0.005	0.017	0.02	0.01	0.02	0.00	0.040	0.000	0.000	0.0000	0.002	0.0034

HR 10ga x 96  
Heat# 1703D4

KASHIF REHMAN  
MANAGER METALLURGICAL SERVICES

**\*\*WARNING\*\*** THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.





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*****CHEMICAL PROPERTIES*****															
Heat No. (wt%)	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Al	Nb	V	B	Ti	N
1452D4*	0.06	0.37	0.006	0.003	0.024	0.02	0.02	0.05	0.00	0.024	0.000	0.000	0.0000	0.000	0.0049
1703D4*	0.06	0.36	0.007	0.005	0.017	0.02	0.01	0.02	0.00	0.040	0.000	0.000	0.0000	0.002	0.0034

HR 10ga x 96  
Heat# 1452D4

KASHIF REHMAN  
MANAGER METALLURGICAL SERVICES

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**CERTIFICATE OF ANALYSIS**

Cert Number 31252-4  
 Test Reference 42213

6/19/2018

NORTH SHORE SUPPLY CO INC  
 PO BOX 9940  
 HOUSTON, TX 77213

Sold To: NORTH SHORE SUPPLY CO INC, PO BOX 9940, HOUSTON, TX 77213  
 Ship To: NORTH SHORE STEEL, 12929 MARKET STREET, HOUSTON, TX 77015

Customer 710560/0      Your Order 304354 (6/6/2018)  
 Our Order 15421-1-1      Packing List 31252-1 (6/19/2018)

TEMPERED LEVELED SHEET A1011 CS TYPE B  
 0.1340" x 96" x 240"

Origin

Heat  
 6185D4

**Product Information**

Tag  
 19682A  
 19682B  
 19682C

Pcs	LBS
6	5,382
12	10,764
10	8,970
<b>28</b>	<b>25,116</b>

**Chemical Composition**

C.E.: 0.1747

D.I.: 0

C	Mn	Si	P	S	Cr	Ni	Mo
0.10	0.38	0.026	0.011	0.004	0.03	0.02	0.01
Cu	Al	V	Ti	Cb	CbV		
0.03	0.034	0.00	0.001	0.00	0.00		

Product of Coil





**CERTIFICATE OF ANALYSIS**

Cert Number 31252-4 6/19/2018  
 Test Reference 38737

NORTH SHORE SUPPLY CO INC  
 PO BOX 9940  
 HOUSTON, TX 77213

Sold To: NORTH SHORE SUPPLY CO INC, PO BOX 9940, HOUSTON, TX 77213  
 Ship To: NORTH SHORE STEEL, 12929 MARKET STREET, HOUSTON, TX 77015

Customer 710560/0 Your Order 304354 (6/6/2018) Reference  
 Our Order 15421-1-1 Packing List 31252-1 (6/19/2018)

Product Information  
 TEMPERED LEVELED SHEET A1011 CS TYPE B Origin Heat Tag Pcs LBS  
 0.1340" x 96" x 240" Canada 3793D4-03 18243A 11 9,862  
 18243B 12 10,759  
 23 20,621

Conform To ASTM-A1011 CS B 4/27/2013

Chemical Composition							C.E.: 0.1583	D.I.: 0
C	Mn	Si	P	S	Cr	Ni	Mo	
0.09	0.37	0.024	0.007	0.006	0.02	0.02	0.00	
Cu	Al	V	Ti	Cb	CbV			
0.02	0.027	0.00	0.001	0.00	0.00			