

Sample Result Name
9816 (strip-36x 36) hmo-S-650

Type
Unknown

Measure Date Time
Wednesday, August 13, 2014

Recalculation Date Time
2:53:57 PM

Origin
Measured

Method Name
Fe-30-MO

Method Version

Operator Name
SARA SAE

Check Type
None

Check Status
Not Used

Grade Verification Name

Grade Verification Similarity
0

Correction Type

Type Corr Sample Name

Grade Search Name

Grade Search Similarity
0

Type
None

Status
Not Used

Outlier Removal

Grade Search Name

Sample Name
9816 (strip-36x 36) hmo-S-650

Grade

	C	Si	Mn	P	S	Cr	Mo	Ni	Al	Co	Cu	Nb	Ti	V	W	Pb	Sn	As	Zr
Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	0.066	0.097	0.44	0.017	0.029	0.061	<0.003	0.047	0.040	0.005	0.087	<0.005	0.004	<0.002	<0.040	<0.010	0.010	0.006	<0.003
3	0.068	0.091	0.45	0.020	0.035	0.064	<0.003	0.050	0.031	<0.005	0.089	<0.005	0.004	<0.002	<0.040	<0.010	0.011	<0.005	<0.003
4	0.062	0.084	0.45	0.022	0.035	0.063	<0.003	0.046	0.030	0.006	0.090	<0.005	0.003	<0.002	<0.040	<0.010	0.011	<0.005	<0.003
5	0.065	0.095	0.44	0.024	0.031	0.062	<0.003	0.050	0.032	<0.005	0.087	<0.005	0.004	<0.002	<0.040	<0.010	0.010	0.006	<0.003
Rep	0.062	0.092	0.44	0.021	0.032	0.063	<0.003	0.048	0.033	0.005	0.088	<0.005	0.004	<0.002	<0.040	<0.010	0.010	0.005	<0.003
Min Cal	0.006	0.005	0.004	0.003	0.002	0.005	0.003	0.005	0.003	0.005	0.002	0.005	0.0010	0.002	<0.040	<0.010	0.010	0.005	<0.003
Mean	0.062	0.092	0.44	0.021	0.032	0.063	<0.002	0.048	0.033	0.005	0.088	<0.013	0.004	0.002	0.040	0.010	0.010	0.005	<0.003
Max Cal	3.00	5.04	18.12	0.18	0.30	36.00	10.20	55.2	6.24	21.60	7.44	3.60	3.60	12.00	7.32	0.13	0.27	<0.005	0.19

	Ca	B	Fe
Conc	Conc	Conc	Conc
%	%	%	%
1	0.001	<0.0005	99.0
3	0.001	<0.0005	99.0
4	0.0008	<0.0005	99.0
5	0.0009	<0.0005	99.0
Rep	0.001	<0.0005	99.0
Min Cal	0.0005	0.0005	99.2
Mean	0.001	<0.0003	99.2
Max Cal	0.016	0.025	

Quality in 1008 as per
See 26-6/15

Qupak

8/16/2014

Sample Results



SHARU STEELS (P) LTD.

B-48 & D-251, Phase-VII, Focal Point, LUDHIANA - 141 010.
Mobile : 98550-82559 E-mail : info@sharusteels.com & sales@sharusteels.com

QUALITY ASSURANCE DEPARTMENT
METALLURGICAL TEST REPORT

F-QCD-03

ISO 9001 : 2008
Certified Company

18348

TEST CERTIFICATE

M/S. SARA SAE PRIVATE LIMITED DIVISION-II A-2 SARA INDUSTRIAL ESTATE LTD. CHAKRATA ROAD, SELAQUI RAMPUR DEHRADUN (UTTRAKHAND)	T.C. No. 0439 Invoice No. Truck No. PB23C/9691	Date 06-08-2014
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GRADE	SIZE	HEAT NO.	MANUFACTURING ROUTE	COLOUR CODE	SUPPLY COND.N.	QNTY. M.T.	NO. OF PCS.
LCS	32X32	S-650	L/HT	WHITE	AS-ROLLED	1.950 MT	LOOSE

CHEMICAL COMPOSITION IN PERCENTAGE

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu	Sn	Ti	B	Ca
Min.	-														
Max.	-														
Actual	0.08	0.44	0.030	0.032	0.09					0.033					

METALLURGICAL RESULTS

INCLUSION RATING IS : 4163/JK CHART/ASTM E-45A									Aust. Grain Size ASTM No. (E-112)	5/6	Gas content (ppm)	
A		B		C		D			Decarb. (MM)		O ₂	
T	H	T	H	T	H	T	H				N ₂	
STD									Micro-Structure	P+F	H ₂	
MAX												
ACTUAL	1.0		1.0		1.0		1.0					

MECHANICAL PROPERTIES

	U.T.S.	Y.S.	EL %	RA %	Impact Value	Hardness B.H.N. / Rb	MACRO	ULTRASONIC TEST	MIX UP TEST
Reqd.							OK		OK
Actual									

HARDENABILITY (HRC) AS PER IS : 3848

Distance												
Regd.												
Actual												

Remarks :

Qualify in 1008 as per Spec 25-615
Deputy