



JAYASWAL NECO INDUSTRIES LIMITED

(STEEL PLANT DIVISION)

SILTARA INDUSTRIAL GROWTH CENTRE, RAIPUR (C.G.)

Ph.: +91-7721-264241/263, Fax No.: +91-7721-264279/264240

TEST CERTIFICATE

Ng: SM37834

CUSTOMER

SPECIFICATION

QTY V No / REF NO

AT NO

GRADE

SECTION(MM)

REDUCTION RATIO

PUT SIZE (MM)

PROCESS ROUTE

:HAPPY FORGINGS LTD. (ELS) PO. JUGHANA, LUDHIANA

:HFL/TDC-18.MFR-514(REV-01)

:05.25.10.2016

:M806415

:20MMCR5

:95 DIA

:8.82

:250 X 250

:BF/EOF/LRF/VD/CCM/SEN/M/ENS/AMLC

INVOICE NO

TRUCK NO

DATE

NO OF PCS / BNDL

QUANTITY (MT)

COLOUR CODE

SUPPLY CONDITION

MULTIPLE LENGTH

DA/RM/F10

: 258742

: PB04V/6319

: 16/02/2018

: 69PCS/14BNDLS

: 27.800

: WHITE BASE+RED DOT

: AS ROLLED

: 5-6 MTR

CHEMICAL COMPOSITION % (Ladle/Product)

	%C	%Mn	%P	%S	%Si	%Cr	%Ni	%Mo	%Pb	%Cu	%Sn	%V	%Ti	%B	%Al	%Ca
JUST. MIN	0.150	1.000	--	0.015	0.150	1.000	--	--	--	--	--	--	--	--	--	--
PEC. MAX	0.200	1.300	0.020	0.030	0.400	1.300	0.300	0.100	--	0.300	--	--	--	0.0005	0.050	0.0010
ACTUAL	0.190	1.290	0.010	0.025	0.190	1.290	0.020	0.010	--	0.010	0.005	0.007	0.0020	0.0003	0.024	0.0002

MECHANICAL PROPERTIES

SPECIFIED

ACTUAL

930N/MM2 MIN	1145 N/MM2
1230-1570N/MM2	1290 N/MM2
72MIN	11.56
25J MIN.	36/38 JOULES
240BHN MX	180/200 BHN

CRO STRUCTURE

AIN SIZE (ASTM E112/IS:4748)

TAL DECARB (MM) SAEJ419

CL RATINGS (ASTM E-45/IS:4163)

F+P (ER-IV MX-UN1844FERRITE+PEARLITE

5-BASTM

12XDIA MX

6.5/7.5

0.51MM PARTIAL

THIN : THICK; THIN : THICK; THIN : THICK; THIN : THICK;

SPECIFIC REQUIREMENT

A-2.0/1.5 : B-2.0/1.0 : C-0.5/0.5 : D-1.0/1.0

ACTUAL

1.5 : 0.0 : 0.5 : 0.0 : 0.0 : 0.0 : 1.0 : 0.0

CRO ETCH TEST (ASTM E - 381)

D. I. VALUE (J406)

MINY REQUIREMENT

RDENABILITY IS:3848/A255-02

C2R3S3 MX

BETTER THAN C2R2S2.

11ST-INCH/MM:

1.5MM; 5MM : 10MM : 15MM : 20MM : 25MM : 30MM :

VALUES(HRC):

44.50; 42.00; 35.00; 30.00; 28.00; 27.00; 26.00;

GAS LEVEL (PPM) SPECIFIED MAX

GAS LEVEL (PPM) ACHIEVED

O2: 20.0 N2: 60-120 H2: 2.5

O2: 15.8 N2: 71.0 H2: 1.7

REMARKS

100% SPARK/SPECTRAL/MOBILE SPECTRO TEST :OK

STEP DOWN TEST :OK

UPSET TEST :NA

100% UT & MPI TEST OK.



AUTHORISED SIGNATORY