

NO. MSF/P&P/014/Matl. Specn. /TA PIN

DATED: 17/01/2015

SPECIFICATION OF T. A. PIN

1. SPECIFICATION: GOST: 4543-71, GRADE: 30X1CH2A.
2. CHEMICAL COMPOSITION TO BE CHECKED IN CASTING STAGE & FINAL STAGE:

% ELEMENTS	C	Si	Mn	S	P	Ni	Cr	Mo	Al
MIN	0.27	0.90	1.00			1.40	0.90		
MAX	0.34	1.20	1.30	0.025	0.025	1.80	1.20		

3. MACRO: C1 R1 S1 FOR PLATE-I AS PER IS: 13015-1991.
4. NMIR: ABCD 2 THIN & 1 THICK AS PER IS: 4163-1982.
5. GRAIN SIZE: AUSTENITIC GRAIN 5-8/ IS: 2853-1964.
MACRO, NMIR & GRAIN SIZE TO BE CHECKED ON ROLLED BAR.
6. PHYSICAL PROPERTIES: TO BE CHECKED AT HEAT TREATED TEST PIECE.
YIELD STRENGTH: 140 MIN. kgf/mm² ULTIMATE TENSILE STRENGTH: 165 kgf/mm² (MIN)
ELONGATION(%): ON GL (5.65√so): 9 MIN. R of A(%): 45 MIN.
HARDNESS: 43.5-53 RC
IMPACT VALUE (+): 6 MIN. kgfm/cm² IMPACT TYPE: C IMPACT DIRECTION: T
TYPE OF NOTCH: V DEPTH: 2 MM.
7. SIZE OF STEEL BAR: 38 +/- 0.5 MM DIA X 1800 +50.0/-00.0 MM LENGTH.
8. SUPPLY CONDITION:
 - A. THE STEEL SHOULD BE MANUFACTURED FROM, FULLY ALUMINIUM KILLED STEEL MELTED THROUGH BASIC LINED ELECTRIC FURNACE AND LF ROUTE. THE STOCK WILL BE MANUFACTURED BY HOT ROLLING.
 - B. HOT ROLLED BAR TO BE COLD DRAWN TO REQUIRED DIAMETER AS MENTIONED IN POINT NO. 7. THE BAR WILL BE CUT TO REQUIRED LENGTH BY COLD MACHINING MAINTAINING PERPENDICULARITY AND THERE SHOULD NOT HAVE BURN AND BLUNT SPOTS.
 - C. EACH ROLLED BARS WILL BE LEGIBLY HARD STAMPED ON BOTH THE ENDS WITH GRADE OF STEEL AND HEAT NUMBER.
 - D. THE ROLLED BAR SHOULD BE STRAIGHT AND FREE FROM ANY CRACK, FOLD, LAP, OVALITY AND OTHER ROLLING DEFECTS.
 - E. SUPPLIER SHOULD DESPATCH 5 TON MATERIAL FOR TRIAL BEFORE BULK SUPPLY.
9. TEST CERTIFICATES:

THE SUPPLIER SHALL FURNISH FOLLOWING CERTIFICATES ALONG WITH EACH SUPPLY:

 - i. CHEMICAL ANALYSIS REPORT.
 - ii. GRAIN SIZE, MICROSTRUCTURE, MACROSTRUCTURE AND NON METALLIC INCLUSION RATING. (REPORT FROM NABL ACCREDITED LABORATORY)
 - iii. DIMENSIONAL REPORTS.
 - iv. NUMBER OF PIECES SUPPLIED.
 - v. CHALLAN NUMBER.

AWM/P&M

WM/HT
FOR USER

QCO

DIR/ODC