



CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

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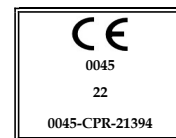
Email : csl@chandansteel.net

WORKS:PLOT NO. 31 TO 36 ,45,46,48, & 49/2,142

(EXP. AREA)GIDC, UMBERERGAON & SURVEY NO. 102/2 & 3,VILLAGE ,

DEHARI, TALUKA:UMBERGAON, DIST:VALSAD, GUJARAT -396171

GSTIN - 24AAACC4713B1ZG



L/c. No.:

L/c. Date:

F860(824) QC 09A /00/11.01.2018

MILL TEST / INSPECTION CERTIFICATE 3.1

ACCORDING TO EN 10204 : 2005

Stappert Deutschland GmbH Willstatterstrabe 13 40549 Dusseldorf Germany	Test Certificate No. : EXP/24-25/01039-04
	Date of Issue : 07.10.2024
	P. O. No. : 109904/W
	SC_No. & Date : 24-25/0201, Dt.19.07.2024
	Invoice No. & Date : EXP/24-25/01039, Dt.07.10.2024

PRODUCT DESCRIPTION STAINLESS STEEL HOT ROLLED ROUND BARS [HSN Code: 7222.11]	LENGTH		Net Wt.
	Ordered	Actual	2195 Kgs.
	5.0 - 6.2 Mtrs.	5.0 - 6.2 Mtrs.	

Article No.	Item No.	Heat No.	Material/Grade	Size mm	Tolerance	Process Route
-	-	CH-22200	1.4541/321 1.4878/321H UNS S32100	40.00 mm (HR)	EN 10060	Electric Melting, A.O.D. Refining, Continuous Casting, Hot Rolling

CHEMICAL COMPOSITION (Weight %)

	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	Co	Nb	N
Min.	-	-	-	-	-	17.00	-	9.00	-	5x(C+N)	-	-	-
Max.	0.080	1.00	2.00	0.045	0.030	19.00	-	12.00	-	0.70	-	-	-
Results	0.044	0.54	1.89	0.039	0.002	17.13	0.35	9.02	0.36	0.39	0.23	0.023	0.0180

MECHANICAL PROPERTIES

Specified Values	Test Method :- EN ISO 6892-1					Hardness EN ISO 6506-1 (BHN)	Test Method :-Charpy 'V' Notch Impact Tested (2mm) as per DIN EN ISO 148 - 1 Sample Size - 10 x 10 x 55 mm Test Temp. :- 20 °C (Joules)			
	Proof Strength N/mm²/MPa		Tensile Strength N/mm²/MPa (Rm)	Elongation after Fracture (A) %	Reduction of Area (Z)					
	0.2%(Rp0.2)	1%(Rp1.0)		4D / 5D	%		I	II	III	Avg.
Results	335	381	638	52 / 51	72	202-205	232	235	236	234.33

Remarks:

- Hot Rolled & Rough Peeled.
- Solution annealed at 1050°C, soaked for 2-1/2 Hrs. followed by water quenching.
- PMI test done 100% & found Satisfactory.
- Grain size No. 5-6 as per ASTM E-112:13 Test Method.
- Material is free from radio-active contamination.
- Round bar 45 mm Rolled from 200 x 200 mm Cast billets - Reduction Ratio 25.14:1.
- Intergranular Corrosion test carried out as per EN ISO 3651-2:1998 (Test method A) & ASTM A262 Pr. 'E' found satisfactory.
- The material hardness is in Accordance with NACE MR 0175/ISO 15156-1:2015 and NACE MR 0103-2015.
- Micro structure reveals- equiaxed grains of Austenite & free from carbide Precipitation.
- Material is Ultrasonically Tested as per EN 10308:2002/EN 10228-4:2016- Class-3 & found satisfactory.
- The material conforms to DIN EN 10088-3:2014, EN 10088-5:2009, EN 10272-2016, AD2000 W2/W10, ASTM A182/A182M-24b, A276/A276M-24a, A479/A479M-23a, A484/A484M-24, ASME SA 182/SA182 M-21, ASME SA276-21 & SA 479/SA479 M- 2021 of SECTION II PART A, & Customer Specifications TDC - TL 117 /NBR 1.4541-1.4878, Rev.1 Released in.11.2019
- Approved acc. to AD 2000-Merkblatt W0 and certified acc. to PED (2014/68/EU) by Certification Body for Pressure Equipment of TUV NORD Systems (notified body, reg. no.:0045)
- Location of sample - Off Centre, Direction - Longitudinal, Test Temp - Room Temp., Shape of Test Piece - Round.
- Marking details - Company Logo, Size, Grade & Heat No.
- The material is manufactured /melted in Chandan Steel Ltd Mill and is of "Indian Origin".
- Material does not contain steel products originating in Russia mentioned in Annex XVII to the (EU) Regulation No 833/2014 and further amendment.
- Dimensions & Visual Inspection - Ok.
- No welding/weld repairs was performed on this material.

BUNDLE NO.: 112 to 114

COLOUR : RED

Intended use : Building construction or civil engineering.

Regulated substance : No performance determined.

It is hereby certified that the above results are true and correct in every details and are meeting the requirements of specification & purchase order.

D.O.P. No.: 1.4541 /ROUND BAR

D.O.P. can be seen here: www.chandansteel.net

B. S. RAUTELA

MANAGER - Q.A./WORKS INSPECTOR

[Signature]

