



TOYO INDUSTRIES

(ISO 9001 - 2015 Certified Company)

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MATERIAL TEST CERTIFICATE

THE CERTIFICATE HAS BEEN PREPARED AS PER EN 10204:3.1

CUSTOMER NAME : M/s. Jc Valvulas India Pvt Ltd TC NO : TI/LAB/3547
 PURCHASE ORDER NO : JCCMP-2425001630 DATE : 26.03.2025
 DATE : 10.12.2024 INV NO : TI -815/24-25
 JC MDS NO: JC-MDS-204- REV6 DATE : 26.03.2025
 INSPECTION AGENCY : MICROLAB

DESCRIPTION

SL NO	ITEM	QTY (Nos)	MATERIAL SPEC	H.NO	MARKING
1	HEX BOLT 7/16" 14 UNC X 29 T933U716118B8M	67	ASTM A193 GR.B8M CL1 / 23	TI-2121	B8M T

CHEMICAL ANALYSIS

H.NO		C	Mn	P	S	Si	Cr	Ni	Mo
	REQUIRED	0.08 max	2 max	0.045 max	0.03 max	1 max	16.00-18.00	10.00-14.00	2.00-3.00
TI-2121	ACTUAL	0.030	1.55	0.021	0.011	0.545	16.71	10.21	2.22

MECHANICAL TEST RESULTS

H.NO		TENSILE STRENGTH	YIELD STRENGTH	% ELONG	% REDUCTION IN AREA	Hardness max
	REQUIRED	515 min	205 min	30 min	50 min	HRB
TI-2121	ACTUAL	666.00	432.00	43.00	62.00	95, 96, 95

IDENTIFICATION MARK:-

1. ABOVE MATERIAL CONFORMS TO ASTM A193 GR.B8M CL1 / 23

Heat Treatment:-

Carbide solution treated

Temp Min °C - 1040°C

Temp Recorded °C - 1080°C

Soaking time (in minutes) : 60

Quenching medium : Water

Remarks:

1. Material is free from radioactive contamination,
2. 100% visual inspection carried out & found free from defects
3. Chemical, Mechanical hardness testing carried out at room 25°C
4. Sampling basis hardness testing is performed & found as per requirement
5. This Material confirm to NACE MR0175 / ISO 15156



FOR TOYO INDUSTRIES

R.PANDIYAN
MANAGER QC

