

GSTIN : 33AAGFT3111R1Z1



# 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/4332  
PURCHASE ORDER NO : JCCMP-2526-02150 / 01518 DATE : 24.04.2026  
DATE : 28.01.2026 / 26.11.2025 INV NO : TI-057/26-27  
JC MDS NO: JC-MDS-202 REV.10 DATE : 24.04.2026  
INSPECTION AGENCY : MICROLAB

### DESCRIPTION

SL NO	ITEM	QTY (Nos)	MATERIAL SPEC	H.NO	MARKING
1	Hex Head Bolt 9/16"12 UNC X 35 T933U916138B7MZ	188	ASTM A193 GR.B7M / 24	TI2456	B7M T
2	HEX BOLT M14 X 2 X 38 CODE: T800N032B7M	2750	ASTM A193 GR.B7M / 24	TI2456	

### CHEMICAL ANALYSIS

H.NO		C	Mn	P	S	Si	Cr	MO	
	REQUIRED	0.38-0.48	0.75-1.00	0.035 max	0.040 max	0.15-0.35	0.80 - 1.10	0.15-0.25	-
TI2456	ACTUAL	0.425	0.829	0.015	0.020	0.297	0.912	0.205	-

### MECHANICAL TEST RESULTS

H.NO		TENSILE STRENGTH MPa	YIELD STRENGTH min 0.2 % offset Mpa	% ELON G in 4D	% REDUCTION IN AREA Min	Toyo tested Hardness Max
	REQUIRED	690	550	18	50	235 HBW
TI2456	ACTUAL	795	687	32.0	65.0	220-228 HBW

### IDENTIFICATION MARK:-

1. ABOVE MATERIAL AS CONFORMS TO ASTM A193 GR.B7M /24  
Heat Treatment:-

Temp Min °F - 1150°F

Recorded °F - 1170°F

Soaking time (in minutes) : 120

Quanching medium : Air

Remars:

- 1.Material is free from radioactive contamination,
- 2.100% visual inspection carried out & found free from defects
- 3.Chemical ,Machanical 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 MRO175 / ISO 15156

JC Valvulas India Pvt. Ltd.

Chennai, Tamil Nadu, India  
Verified & Accepted

Q.A. R. D. K. J.

FOR TOYO INDUSTRIES

R.PANDIYAN  
MANAGER OC

