

GSTIN : 33AAGFT3111R1Z1



TOYO INDUSTRIES

(ISO 9001 - 2015 Certified Company)

Survey No. 7/1, Shed No. 3/201, Parivakkam Road, Vetrilalthottam,
Earikarai, Senneerkuppam, Chennai - 600 056. Cell : 99401 11283

Email : toyoindustries@gmail.com / rpandiyar@toyoindustries.in Website : www.toyoindustries.in



THE CERTIFICATE HAS BEEN PREPARED AS PER EN 10204:3.1

CUSTOMER NAME : M/s. JC Fabrica De Valvulas Spain.
PURCHASE ORDER NO : JCCMP-2526-02422
DATE : 06.03.2026
JC MDS NO: JC-MDS-204- REV.9
INSPECTION AGENCY : MICROLAB

TC NO : TI/LAB/4333
DATE : 24.04.2026
INV NO : TI-057/26-27
DATE : 24.04.2026

DESCRIPTION

SL NO	ITEM	QTY (Nos)	MATERIAL SPEC	H.NO	MARKING
1	STUD 1"-8UNC x 200 CODE: SUI202B8M-023	8	ASTM A193 GR.B8M CL1 /24a	TI-3002	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-3002	ACTUAL	0.029	1.65	0.022	0.018	0.532	16.78	10.84	2.61

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 96
TI-3002	ACTUAL	697.00	499.00	59.00	70.00	95, 96, 95

Test Solution Copper – Copper Sulfate – 16% Sulfuric Acid	Total Surface Area of the specimen (cm²) 47.0281
Test Specimen Size (mm) - L:105.05 x 11.99W x Thk:5.88	Bend Test 1T / 180 Degree
Start of Boiling 15.04.2026 05.00 pm -16.04.2026 09.00 am	Evaluation No Cracks and No Intergranular Fissures Observed at 20x Magnification
Duration of Test 15 Hours	

IDENTIFICATION MARK:-

1. ABOVE MATERIAL CONFORMS TO ASTM A193 GR.B8M CL1 / 24a
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 MRO175 / ISO 15156
6. Raw material reduction Ratio shall be minimum 4:1

FOR TOYO INDUSTRIES

R.PANDIYAN
MANAGER QC



JC Valvulas India Pvt. Ltd.

Chennai, Tamil Nadu, India
Verified & Accepted

Q.A.

R. D. A. J.