

# MATERIAL TEST CERTIFICATE

EN10204:2004 3.1

YONGJIA TONG BALL Valve Co., Ltd.

Address: Anfeng Industrial Zone, Oubei Town, Wenzhou City, Zhejiang Province, China

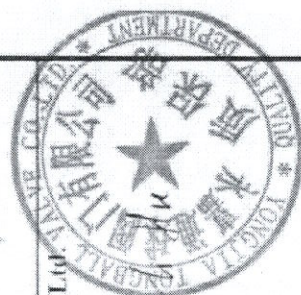
Material Specification: ASTM A182 F51-Edition 2024A

Purchaser: JC VALVULAS INDIA PVT LTD

Date: 2025-01-07

NO: R25010013

Heat No.	Chemical Composition (%)										Forging	
	C	Mn	Si	S	P	Cr	Mo	Ni	N			
	Specification	≤0.03	≤2.00	≤1.00	≤0.02	≤0.03	21.0-23.0	2.50-3.50	4.5-6.5	0.08-0.20	≥3	1
	Actual	0.021	1.748	0.358	0.0022	0.0263	22.52	3.072	4.63	0.1665	4.19	
H.T Batch No.	Mechanical Property Test											
	Tensile Test					Impact Test						
BD032412162	Test Temp.		Tensile $\sigma_b$ (Mpa)	Yield as 0.2 (Mpa)	Elongation (%)	Reduction of Area (%)	Temp. (°C)	Specimen Size	Akv (J)	Hardness (HRC)(max)		
	Ambient Temp.	STD	Min620	Min450	Min25	Min40						20,22
		Actual	752	496	47	82		(1)	(2)	(3)		
Heat No.	Other Test					Heat Treatment					Remarks	
	PT	UT				solution treat 1040°C, 2.5h, Quenching below 260 °C, water cold						
SF9207	Accepted	Accepted				Accepted						
PO.SR.No.	Drawing No.	Item Description			Qty	Heat No.	YONGJIA TONG BALL Valve Co., Ltd. Q.A. Head: Zhongli Hu					
22	X2B-200-6050N-02 REV.2	BALL DN200F.6050N CL1500 CLOSED SLOT A182 Gr.F51+25 MICRON ENP SP-009 MDS No.JC-MDS-346-104 Rev.6.2			2	SF9207	Q.A. Head: Zhongli Hu					



JC Valvulas India Pvt. Ltd.  
Q.A. Head: Zhongli Hu

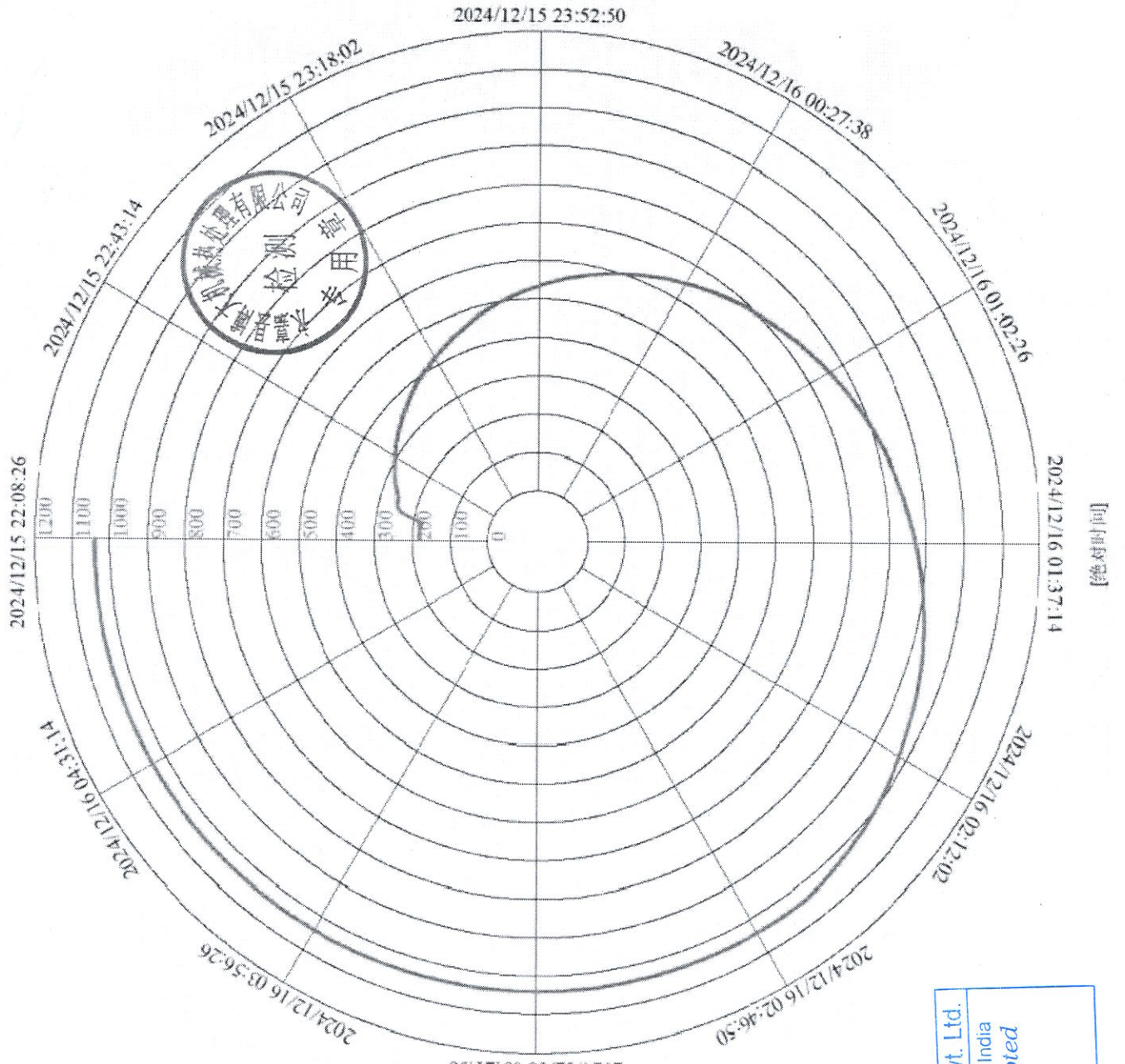
We hereby certify that the parts listed above are manufactured and inspected, tested in accordance with the requirements of material specification JC-MDS-346 REV.6&JC-MDS-104 REV.2&SP-009 ASTM A182 F51-Edition 2024A the material conforms to MSS-SP-97 for hardness.

Q.A. Head: Zhongli Hu



# 圆图曲线打印

设备名称: 总貌  
 打印通道: 通道02[C1]  
 记录间隔: 2 秒  
 开始时间: 2024/12/15 22:08:26  
 结束时间: 2024/12/16 05:06:12  
 数据数量: 12534



设备号 Equipment No.	时间戳 Timestamp	报警ID Alarm ID	报警名称 Alarm Name	报警类型 Alarm Type	报警级别 Alarm Level	报警数量 Alarm Count	报警位置 Alarm Location
1504-259	41251	SP001	报警	报警	报警	2	报警
1504-259	41251	SP001	报警	报警	报警	2	报警
1504-259	41251	SP001	报警	报警	报警	4	报警
1504-259	41251	SP001	报警	报警	报警	0	报警

O.A. Head: Zhonghua Hu

JC Valvulas India Pvt. Ltd.  
 Chennai, Tamil Nadu, India  
 Verified & Accepted  
 Q.A. *P. D. S. J.*

## Test Report

<b>Customer:</b>  <b>M/s. JC Valvulas India Private Limited</b>  No: 143, 1st Main Road, Industrial Estate, Perungudi ,City:Chennai ,600096	Report No.:	TR/24-25/7365-1
	Report Date:	25-03-2025
	Customer Ref. No.:	DC2425002013
	Ref. Date	07-03-2025
	Sample Received Date:	10-03-2025
	Date Of Completion:	24-03-2025

Samples drawn by Customer

**Sample Description:** Test Bar, Heat No: SF9207, Material: F51, SP-Code: SP-009, PO No: SC-2425002566

**Discipline : Chemical, Group : CORROSION TESTING**

**INTERGRANULAR CORROSION TEST (PRACTICE-C)**

**Test Method : ASTM A262:2015 (2021)**

**Verified By: N THINESH KANNAN**

**Tested on : 12-03-2025 to 24-03-2025**

Test Parameters	Result	Requirement
Test Solution	Nitric Acid Test Solution	
Volume of test solution (ml/cm <sup>2</sup> )	1000	
Size (mm) and total surface area (cm <sup>2</sup> )	L:27.27 x W:20.07 x Thk:8.14 & 18.6531	
Test start date & time	12.03.2025 (04.00 pm)	
Test end date & time	24.03.2025 (09.30 am)	
Duration of Test (Hours)	240	
Period	1st 48 hours	
Initial wt.of speciman in g	34.1989	
Final wt.of speciman in g	34.1849	
Weight Loss in g	0.0140	
Corrosion rate (mils/month)	0.5616	
Period	2nd 48 hours	
Initial wt.of speciman in g	34.1849	
Final wt.of speciman in g	34.1744	
Weight Loss in g	0.0105	
Corrosion rate (mils/month)	0.4212	
Period	3rd 48 hours	
Initial wt.of speciman in g	34.1744	
Final wt.of speciman in g	34.1586	
Weight Loss in g	0.0158	
Corrosion rate (mils/month)	0.6338	

JC Valvulas India Pvt. Ltd.  
Chennai, Tamil Nadu, India  
Verified & Accepted  
*C. Dattaji*

**NOTE :** This report relates only to the particular sample submitted for test \* Any correction is not attested shall invalidate this certificate \* Sample will be destroyed after 15 days from the date of testing unless instructed otherwise \* Any complaints about this report should be communicated in writing within 7 days of this report \* This report not to be produced wholly or in parts and cannot be used as an evidence in a court of law and shall not be used in advertising Media without prior permission in writing \* Sample description is not verified in all cases and is given as described by the customers \* Sample are not drawn by us unless otherwise stated \* Laboratory reports the statements of Conformity to material specification as per Decision Rule 1, Non Conformity as per Decision Rule 4 & For Rule 2 & 3 Customer provides feedback.



TR/24-25/7365-1 Dt- 25-03-2025

Period	4th 48 hours
Initial wt.of speciman in g	34.1586
Final wt.of speciman in g	34.1382
Weight Loss in g	0.0204
Corrosion rate (mils/month)	0.8183
Period	5th 48 hours
Initial wt.of speciman in g	34.1382
Final wt.of speciman in g	34.1111
Weight Loss in g	0.0271
Corrosion rate (mils/month)	1.0871
Average Corrosion Rate (mils/month)	0.7044

4.0 max.

**For MICROLAB**



K. Mathan Kumar  
Head, Corrosion & Polymer Department

**Authorized Signatory**

----- End of Test Report -----

JC Valvulas India Pvt. Ltd.  
Chennai, Tamil Nadu, India  
Verified & Accepted  
*C. Senthil*

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