

# MATERIAL TEST CERTIFICATE

EN10204:2004 3.1

YONGJIA TONG BALL Valve Co., Ltd.

Address: Dongou Industrial Zone, Oubei Street, Yongjia County, Zhejiang Province (1st Floor Plant of Wenzhou Huajiang Industrial Co., Ltd)

Purchaser: JC VALVULAS INDIA PVT LTD

Material Specification: ASTM A351 CF3M- Edition 2024

Order No.: JCCMP-2425001581

NO: R24J20217

Date: 2025-01-05

Heat No.	Chemical Composition (%)									
	C	Mn	Si	S	P	Cu	Mo	Ni		
Specification	≤0.03	≤1.50	≤1.50	≤0.04	≤0.04	17-21	2-3	9-13		
Actual	0.0229	1.024	1.06	0.026	0.027	17.24	2.07	9.08		
Mechanical Property Test										
H.T Batch No.	Tensile Test					Impact Test			Hardness	
	Test Temp.	Tensile σb (Mpa)	Yield σs 0.2 (Mpa)	Elongation (%)	Reduction of Area (%)	Temp. (°C)	Specimen	Akv	Hardness (HB(max))	
BD032412166	STD	Min 485	Min 205	Min 30				(1) (2) (3)	≤237	
	Ambient Temp.	Actual	341	61				Avg	157,161	
Heat No.	Other Test				Heat Treatment				Remarks	
	PT	UT	VISUAL INSPECTION		solution treat 1040°C 2h, Quenching below 260 °C, water cold					
241212B7	Accepted	Accepted	Accepted							
PO.SR.No.	Drawing No.	Item Description			Qty	Heat No.	Remarks			
23	X2B-250-2515N-01 REV.4	BALL DN250CL150-300 A351 GR.CF3M SP-008 MDS No.JC-MDS-302 Rev.5			10	241212B7	YONGJIA TONG BALL Valve Co., Ltd. Q.A. Head: Zhongji Hu			

Q.A. Head: Zhongji Hu



We hereby certify that the parts listed above are manufactured and inspected, tested in accordance with the requirements of material specification ASTM A351 CF3M- Edition 2024 & JC-MDS-302 REV.5 & SP-008 the material conforms to MR0175 for hardness.

JC VALVULAS INDIA PVT. LTD.  
Chennai, Tamil Nadu, India  
Verified & Accepted

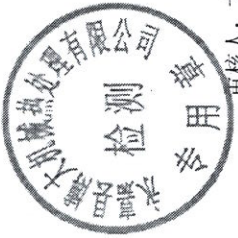
R. Dinku

CA

# Heat treatment record report 热处理记录报告

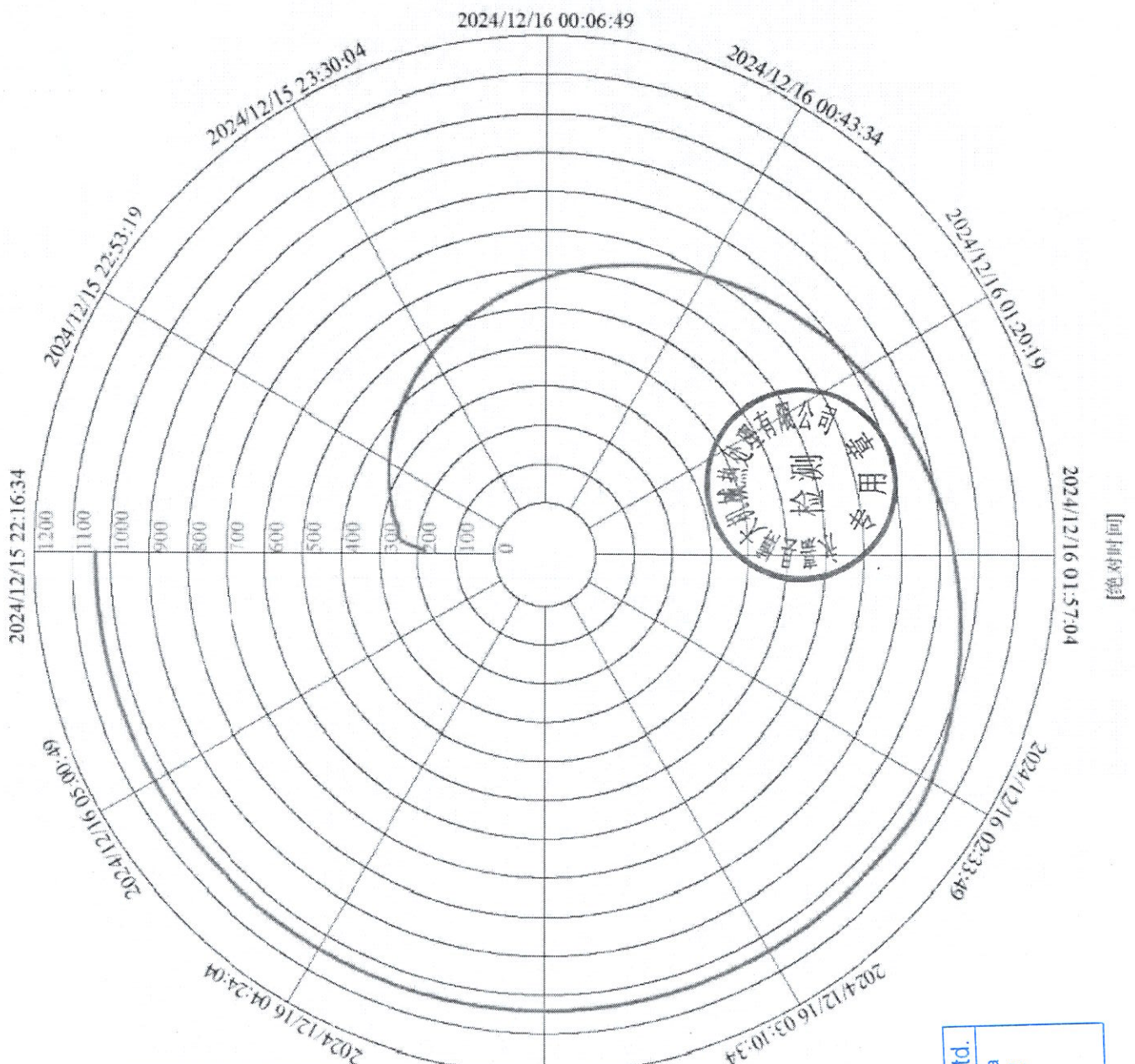
委托单位 (Entrust Company): 永嘉通球阀有限公司

NO: TQ02412163

material trademark 材料牌号		A351 CF3M		Process name 工艺名称		固溶		
Equipment number 设备编号	BD1701-7	Thermocouple number 热电偶编号	70387	Recorder number 记录仪编号	18090356	Order number 炉序号	BD032412166	
Procedure content 工序内容	Holding temperature 保温温度 1040	Soaking time 保温时间 h 3	Cooling medium 冷却介质 水冷	Pre-quenching temperature (介质) 淬前温度℃ 30	Quenching temperature (介质) 淬后温度℃ 39			
product name 产品名称	固定球	Description 型号规格 388*252*291	Quantity 数量 10	Heat NO. 炉号 241212B7	Mechanical property 机械性能			
试棒	30*360	1	241212B7	Test item 实验项目				EMR
						AK/J/Cm <sup>2</sup>		硬度值
					Q.A. Head: Zhongli Hu			
					Yongjia Boda machinery heat treatment co., Ltd 永嘉县博大机械热处理有限公司			
								
					填表人: 叶建玲      审核人: 方建东 日期: 2024-12-16			
					JC Valvulas India Pvt. Ltd. Chennai, Tamil Nadu, India Verified & Accepted R. A. S.			

# 圆图曲线打印

设备名称: 总裂  
 打印通道: 通道02 [x] ■  
 记录间隔: 2 秒  
 开始时间: 2024/12/15 22:16:34  
 结束时间: 2024/12/16 05:37:40  
 数据数量: 13234



生产单号 Production Order	物料名称 Material/Instruct	型号规格 Description	产品名称 Product name	炉号 Heat No.	炉号 Cook number	数量 Quantity	单位 Unit
1700412004	测试材料	88°22°29'	测试棒	2412128	8062412188	16	包
1700412004	测试材料	37°38'	测试棒	2412128	8062412188	1	包

*Q.S. Head: zhang h lu*

JC Valvias India Pvt. Ltd.  
 Chennai, Tamil Nadu, India  
 Verified & Accepted  
 Q.A. *R. S. K. J.*

【同轴回】



## Test Report

TC1472825000019864F

<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.:	<b>TR/24-25/7349-1</b>
	Report Date:	17-03-2025
	Customer Ref. No.:	DC2425002012
	Ref. Date	07-03-2025
	Sample Received Date:	10-03-2025
	Date Of Completion:	17-03-2025

Samples drawn by Customer

**Sample Description:** Test Bar, Heat No: 241212B7, Material: CF3M, SP-Code: SP-008, PO No: SC-2425002559

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

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

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

**Verified By: N THINESH KANNAN**

**Tested on : 12-03-2025 to 17-03-2025**

Test Parameters	Result	Requirement
Sensitization Temp	Specimen was sensitized at 675 °C for 1 hour	
Test Solution	Ferric Sulfate –Sulfuric Acid Solution	
Size (mm)	L:26.83 x W:20.14 x Thk:8.19	
Total Surface Area of the specimen (cm <sup>2</sup> )	18.5008	
Initial Weight of the specimen (g)	34.4956	
Start of Test	12.03.2025 (05.00 pm)	
End of Test	17.03.2025 (05.00 pm)	
Duration of Test	120 Hours	
Final weight of the specimen (g)	34.3442	
Weight loss (g)	0.1514	
Corrosion Rate (mpy)	29.7639	60.0 max.



**For MICROLAB**

*K. Mathan Kumar*  
 K. Mathan Kumar  
 Head, Corrosion & Polymer Department

**Authorized Signatory**

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

**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.

