

通标标准技术服务（上海）有限公司

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

窗检测报告

Window Test Report

委托单位: 良木道门窗集团有限公司

Entrusting unit: Leawod Windows & Doors Group Co., Ltd

检测项目: 挠度、操作力、气密性能、水密性能、极限强度

Test items: Deflection、Operating Force、Air tightness、
Water tightness、Ultimate strength检测依据: AS 2047-2014 、 AS-NZS 4420.1-2016
Basis for detection:

报告日期: 2025.10.14

Report date: October 14, 2025

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SHCME 022837

窗物理性能检测报告

Window Physical Performance Testing Report

委托单位 Entrusting unit	良木道门窗集团有限公司 Leawod Windows & Doors Group Co., Ltd	检测类别 Detection category	定级检测 Grading testing
厂家地址 Manufacturer's address	四川省德阳市广汉市湘潭路九段3号 No.3, section 9, Xiangtan Road, Guanghan City, Deyang, Sichuan, China	委托日期 The date of the commission	2025.9.23
		检测日期 Date of Testing	2025.9.24
样品名称及 产品规格 Sample name and product specification	GPW115-AU 外开外悬窗 GPW115-AU Outward-opening Window 2000mm(W)*2600mm(H)*115mm(T)	委托编号 Order number	GZIN25090036 92PL01
		样品编号 Sample number	NJG202509077
玻璃最大尺寸 Maximum size of glass	宽 733mm, 高 2515mm, 厚 30mm Width 733mm, Height 2515mm, Thickness 30mm	检测数量 Number of detections	1
开启缝长 Open seam length	6.22m	试件面积 Specimen area	5.20 m ²
受力杆长 The stress rod is long	2380 mm	变形检测允许最大挠度 L/250 The maximum deflection detection is allowed at L/250	9.52 mm
玻璃种类/结构 Types/Structures of Glass	中空钢化玻璃 Tempered Insulating Glass (5+20Ar+5) mm	型材类型 Type of profile	铝合金隔热型材 6063-T5 Aluminum alloy thermal insulation profiles
玻璃密封材料 Glass sealing material	硅酮耐候密封胶 Silicone weathering sealant	框扇密封材料 Frame fan sealing material	三元乙丙胶条 EPDM
五金配件 Hardware	滑撑、风撑、定制执手、六点锁、四合页 Sliding braces, wind braces, custom handles, six-point locks, and four-hinges		



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Testing Center Construction Engineering Laboratory

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检测项目 Test items	设计要求 Design requirements		检测结果 Test results	等级评定 Ratings
挠度 Deflection	$P_{1+} = 2.0 \text{ kPa}$		变形挠度 4.11mm Deformable deflection 4.11mm	General C4
	$P_{1-} = 2.0 \text{ kPa}$		变形挠度 0.11mm Deformable deflection 0.11mm	
操作力# Operating Force	初始移动 Initial Movement	要求 Required	$\leq 200 \text{ N}$	Vertical sliding window Pass
		开启 Open	80 N	
		关闭 Close	170 N	
	保持移动 Maintain Movement	要求 Required	$\leq 160 \text{ N}$	
		开启 Open	55 N	
		关闭 Close	148N	
气密性 Air tightness	75Pa 压差下窗整体单位面积空气渗透量 Air penetration per unit area of the window under a pressure difference of 75Pa		$+ q_A = 0.9 \text{ L/s m}^2$	Low
			$- q_A = 0.7 \text{ L/s m}^2$	
	平均渗漏量 Average leakage		0.8 L/s m^2	
水密性能 Water tightness	静态压力 700Pa Static pressure 700Pa		未发生渗漏 No Leakage	Exposed N6,C4
极限强度 Ultimate strength	$P_{3+} = 4.6 \text{ kPa}$		正常且测试样品未出现功能性障碍或损坏	General C3
	$P_{3-} = 4.6 \text{ kPa}$		No functionally obstacle or damage occurs.	

检测设备 Testing equipment	门窗物理性能检测系统 DW-63 Door and window physical performance testing system DW-63 数显推拉力计 SJ-178 Digital push-pull force gauge SJ-178
检测地址 Test address	上海市浦东新区康桥东路 1159 弄 69 号 11 号楼 Building 11, No. 69, Lane 1159, Kangqiao East Road, Pudong New Area, Shanghai
备注 Remarks	#操作力检测方法不在 CNAS 认可范围内。 The Operating Force test method is not within the CNAS accredited scope.

批准 Approved: 吕旭平 审核 Check: 李华 检测 Test: 李华



附录 测试记录图
Appendix Test record diagram
挠度 Deflection



备注
Remarks

挠度测试未出现功能障碍和损坏
The deflection test showed no dysfunction or damage



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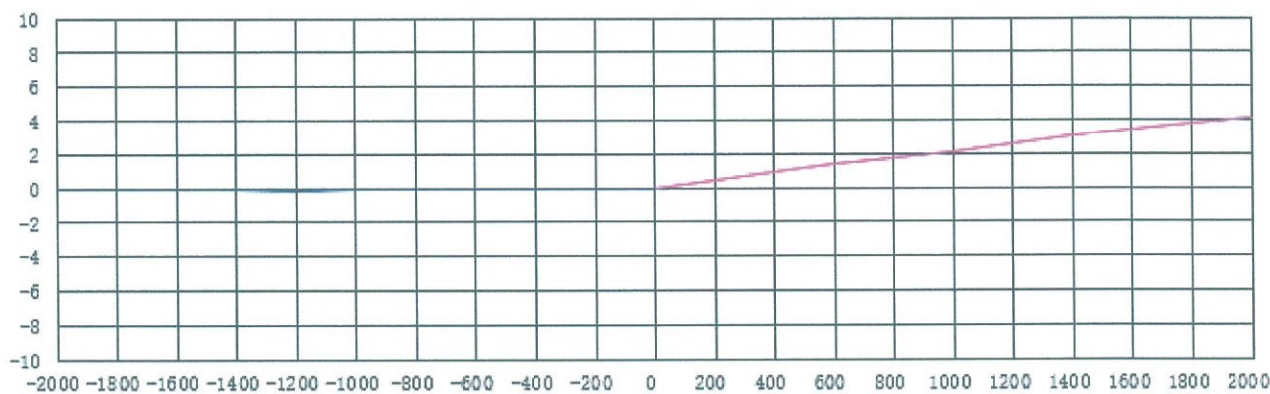
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压力差与挠度关系图

Graph of the relationship between pressure difference and deflection

Positive data collection					Negative data collection				
Pressure difference (Pa)	Deformation value (mm)			Surface normal deflection (mm)	Pressure difference (Pa)	Deformation value (mm)			Surface normal deflection
	A	B	C			A	B	C	
0	0	0	0	0	0	0	0	0	0.00
200	0.30	0.65	0.15	0.43	-200	-0.05	-0.07	-0.06	-0.02
400	0.73	1.45	0.34	0.91	-400	-0.11	-0.15	-0.11	-0.04
600	1.20	2.16	0.51	1.31	-600	-0.16	-0.23	-0.19	-0.06
800	1.51	2.83	0.70	1.72	-800	-0.21	-0.32	-0.24	-0.10
1000	1.82	3.50	0.89	2.14	-1000	-0.27	-0.40	-0.31	-0.11
1200	2.26	4.21	1.07	2.54	-1200	-0.32	-0.46	-0.37	-0.12
1400	2.51	4.89	1.24	3.01	-1400	-0.47	-0.53	-0.44	-0.08
1600	2.97	5.57	1.42	3.38	-1600	-0.55	-0.60	-0.50	-0.07
1800	3.24	6.23	1.61	3.80	-1800	-0.60	-0.68	-0.57	-0.10
2000	3.55	6.80	1.83	4.11	-2000	-0.64	-0.75	-0.64	-0.11

Stress deflection curve



气密性

Air tightness



检测室气温 Temperature of detection room	25 °C	检测室气压 Detection chamber pressure	101.2 kPa
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水密性

Water tightness

备注
Remarks

水流量为 $0.05 \text{ L/m}^2 \cdot \text{s}$ ，开始测试前测试压力为 0 Pa 时淋水 5 min ，随后每级淋水 15 min
The water flow rate is $0.05 \text{ L/m}^2 \cdot \text{s}$, Before starting the test, the test pressure is 0 Pa and
water is sprayed for 5 min , followed by 15 min for each stage



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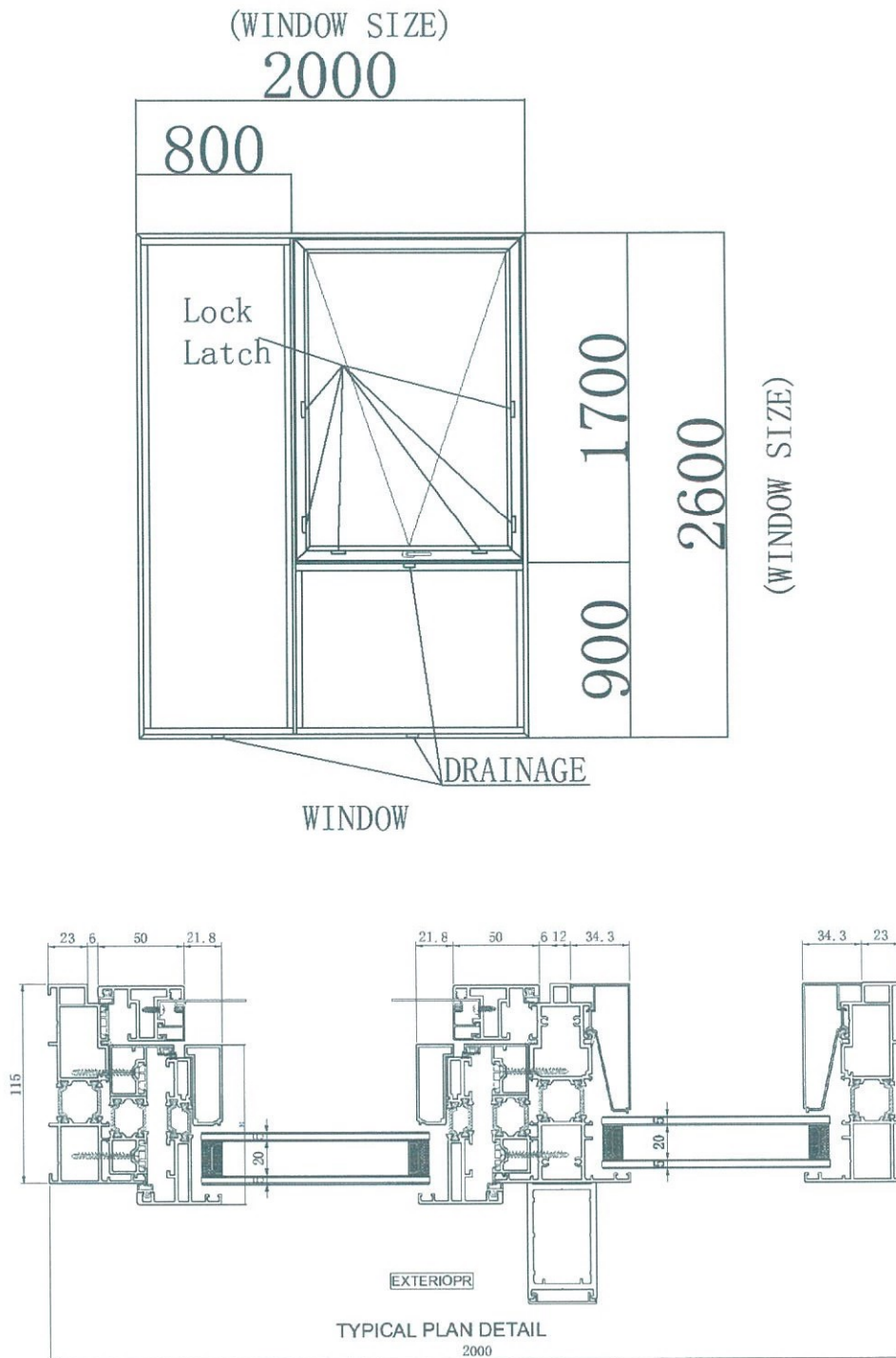
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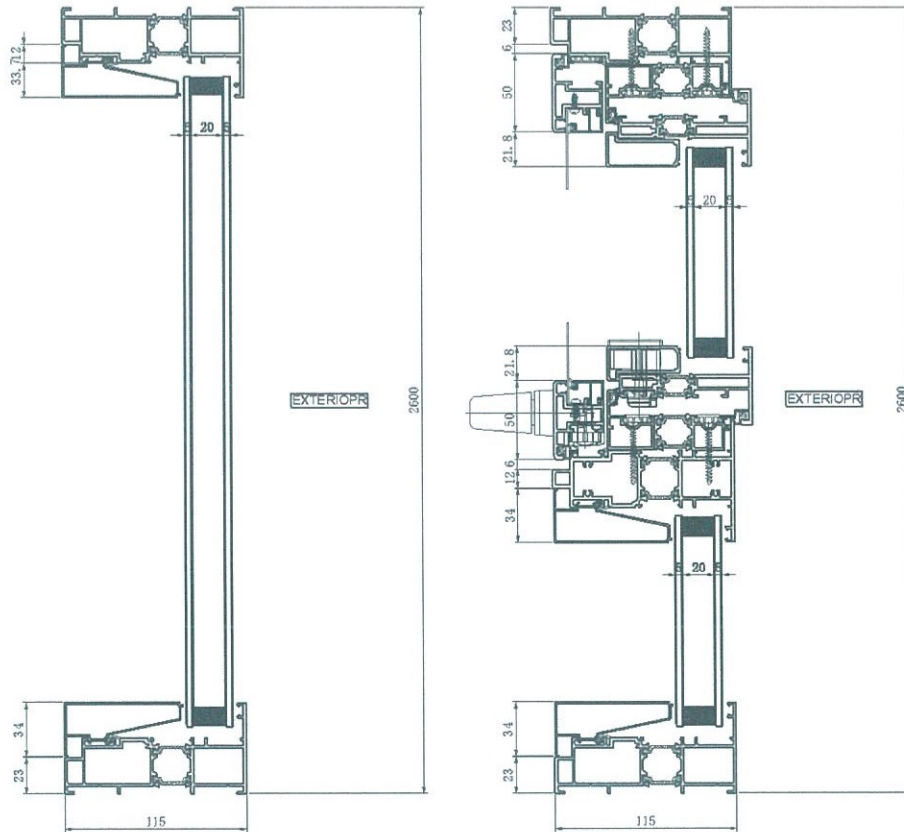
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窗立面图、节点图

Window elevation drawing and node drawing





TYPICAL SECTION DETAIL

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



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