

Sample Inspection and Test Plan (ITP)

Project: _____

Scope of Work: Aluminium Windows

Appendix A

S/No	Activity	Responsibility	Inspection Method	Requirement Reference	Acceptance Criteria	Frequency	Records
1	SUBMISSION						
1.1	Shopdrawings	MC/ADOC	Review	-	Approved	Initially	Approved submissions
1.2	Test reports	MC/ADOC	Review	-	Approved	Initially	Approved submissions
1.3	Technical data	MC/ADOC	Review	-	Approved	Initially	Approved submissions
1.4	Window samples	MC/ADOC	Review	Section 4	Approved	Initially	Approved samples
2	INCOMING MATERIALS INSPECTION						
2.1	Window frames	MC/ADOC	Visual/ specifications	Section 3	As per approved samples & conform to specifications	Each delivery	Delivery document
2.2	Ramset impact bolts/ anchors	MC/ADOC	Visual/ specifications	Section 3	Conform to specifications	Each delivery	Delivery document
2.3	Cement grout & waterproofing compound	MC/ADOC	Review/ specifications	-	Conform to specifications	Each delivery	Delivery document
2.4	Glass panels	MC/ADOC	Visual/ specifications	Section 3	As per approved samples & conform to specifications	Each delivery	Delivery document
2.5	Window accessories	MC/ADOC	Visual/ specifications	Section 3	As per approved samples & conform to specifications	Each delivery	Delivery document

Prepared by _____

Date _____

Verified by _____

Date _____

Approved by _____

Date _____

LEGEND MC – Main contractor

ADOC – Architect/ Designer/ Owner/ Clerk-of-works

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S/No	Activity	Responsibility	Inspection Method	Requirement Reference	Acceptance Criteria	Frequency	Records
3	PREPARATION						
3.1	Mock-up unit in showroom (if required)	MC/ADOC	Visual/ Measurement	Section 4	Approved by ADOC	Initially	-
3.2	Cleaning of surface of opening	MC/ADOC	Visual	Section 7	-	Before installation	-
3.3	Check dimensions of wall opening	MC/ADOC	Visual/ Measurement	Section 7	Conform to approved shop drawing	Before installation	Checklist
4	INSTALLATION OF MAIN FRAME						
4.1	Check window for any damages	MC/ADOC	Visual	Section 7	-	Before installation	Checklist
4.2	Check nos. and spacing of galvanised straps (for lug system)	MC/ADOC	Visual/ Measurement	Section 7	Conform to specifications	Before installation	Checklist
4.3	Check alignment and plumb of window is within tolerance	MC/ADOC	Visual/ Measurement	Section 7	Conform to specifications	Before installation	Checklist
4.4(a)	For lug system – Check ramset dimension	MC/ADOC	Visual/ Measurement	Section 7	Conform to specifications	Before installation	Checklist
4.4(b)	For anchorage system – Check anchor size and length	MC/ADOC	Visual/ Measurement	Section 7	Conform to specifications	Before installation	Checklist

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5	GROUTING AND SEALANT APPLICATION						
5.1(a)	For lug system – Check cement grout used	MC/ADOC	Visual	Section 7	Conform to specifications	Before installation	Checklist
5.1(b)	For anchorage system – Check sealant used	MC/ADOC	Visual	Section 7	Conform to specifications	Before installation	Checklist
5.2	Check that joints are completely filled	MC/ADOC	Visual	Section 7	Compact, smooth & flushed surfaces	After grouting/ sealant application	Checklist
5.3	Remove surplus grout/ sealant	MC/ADOC	Visual	Section 7	Surface is clean	After grouting/ sealant application	Checklist

6 WATERPROOFING

6.1	Waterproofing to external joint areas	MC/ADOC	Visual	Section 7	Even application with good coverage	After waterproofing work	Checklist
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7 INSPECTION OF INNER FRAME

7.1	Check frame for damage	MC/ADOC	Visual	Section 7	No damage	Before installation	Checklist
7.2(a)	For casement/ top hung window – Check installed friction stay	MC/ADOC	Visual	Section 7	Conform to specifications	After installation	Checklist
7.2(b)	For sliding window – Check installed safety screw/ device	MC/ADOC	Visual	Section 7	Conform to specifications	After installation	Checklist

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S/No	Activity	Responsibility	Inspection Method	Requirement Reference	Acceptance Criteria	Frequency	Records
8 INSTALLATION OF GLAZING							
8.1	Check glass for damage	MC/ADOC	Visual	-	No damage	Before installation	Checklist
8.2	Check glass identification	MC/ADOC	Visual/ Measure	Section 7	Conform to approved shop drawing	Before installation	Checklist
8.3	Check weep holes	MC/ADOC	Visual	Section 7	No blockage	Before & After installation	Checklist
8.4	Check installed gasket	MC/ADOC	Visual	Section 7	Clean and no damage	Before & After installation	Checklist
9 INSTALLATION OF ACCESSORIES							
9.1	Check accessories	MC/ADOC	Visual	Section 7	No damage	Before & After installation	Checklist
10 FINAL INSPECTION							
10.1	Cleaning	MC/ADOC	Visual	Section 8	Surface is clean	At completion	-
10.2	Protection	MC/ADOC	Visual	Section 8	Finished works are protected	At completion	-
10.3	Work acceptance	MC/ADOC	Visual	Section 8	As per specifications	At completion	Inspection records
11 WORK HAND-OVER							
11.1	Rectification/ Replacement works	MC/ADOC	Visual	-	-	At hand-over	-
11.2	Inspection by owner	MC/ADOC	Visual	-	-	At hand-over	-

Prepared by _____ Verified by _____ Approved by _____
 Date _____ Date _____ Date _____

LEGEND MC – Main contractor

ADOC – Architect/ Designer/ Owner/ Clerk-of-works

Appendix B

Sample Checklist for In-process Inspection of Aluminium Window Installation

Project: _____

Location: _____

Checklist		Acceptance Criteria/ Requirement reference	Date of Inspection	Remarks
PREPARATORY WORK				
1.	Size and type of window to be installed	Conform to approved shopdrawings		
2.	Dimension and setting out of opening	Conform to approved shopdrawings		
3.	Cleanliness of surface of opening	No debris and dust Surface is level and in good condition		
INSTALLATION OF MAIN FRAME				
4.	Type and size of frame	Conform to approved shopdrawings		
5.	Physical conditions of frames	No physical damage		Replace or rectify
6.	Setting out for main frame	Conform to design drawing by ADOC		
7.	Plumb and alignment of frame	Conform to ADOC's specifications		
8.	Position of galvanised straps/ anchorage points	Conform to ADOC's specifications		
9.	Size and type of ramset/ anchor	Conform to ADOC's specifications		
10.	Earthing of frame where applicable	Conform to ADOC's specifications		
11.	Gap between frame and wall/ column	Conform to design drawing by ADOC		
12.	Grouting/ application of sealant	Proper compactness; <ul style="list-style-type: none"> • No gap or void in the grouting/sealant • Grouting/ sealant to be tooled to give neat surface or edge • 2-3 days curing of grouting 		
13.	Protective materials	Protective materials to remain intact after work		Replace protection tape if tape is damage/ loose
WATERPROOFING				
14.	Application of waterproofing to external joint areas	<ul style="list-style-type: none"> • Conform to ADOC's specifications • Even application with good coverage 		
LEGEND		MC – Main contractor	ADOC – Architect/ Designer/ Owner/ Clerk-of-works	



Sample Checklist for In-process Inspection of Aluminium Window Installation

Project: _____

Location: _____

Checklist	Acceptance Criteria/ Requirement reference	Date of Inspection	Remarks
INSTALLATION OF INNER FRAME			
15.	Type and size of frame	Conform to ADOC's specifications / approved shopdrawings	
16.	Protection material	Protection tapes or sheets to be intact	Replace protection tape if tape is damaged/ loose
17.	Physical conditions of frames	No physical damage	Replace or rectify
18(a).	Friction stay (for casement/ top hung window)	Conform to ADOC's specifications	
18(b).	Safety screw/ device (sliding window)	Conform to ADOC's specifications	
19.	Joints and mitres	Joints and mitres should be accurately assembled and rigidly connected	Replace frame if jointing of frame is poor
20.	Sealant caulking	To have complete seal with neat edges	
GLAZING			
21.	Type, size and thickness of glass	Conform to ADOC's specifications	Replace glass if it does not conform to specifications
22.	Glass	Glass to be protected with strippable films on both surfaces	Replace protection tape if tape is damage/ loose
23.	Physical conditions	No damage or scratches and other physical defects.	
24.	Gasket	<ul style="list-style-type: none"> • Tight fitting of gasket to secure glass • No physical defect on gaskets • No gap at corners of gaskets 	
25.	Sealant caulking	To have complete seal with neat edges	
LEGEND			
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Project: _____

Location: _____

Checklist	Acceptance Criteria/ Requirement reference	Date of Inspection	Remarks
INSTALLATION OF ACCESSORIES			
26.	Handles/ ironmongery	Proper functioning of handles and ironmongery	
27.	Operation	Ease of opening and closing	
28.	Protective materials	Protective materials to remain intact.	Replace protective tape if tape is damage/ loose
FINAL INSPECTION			
29.	Physical conditions	<ul style="list-style-type: none"> No visible scratches / damages No sign of corrosion in ironmongery No mortar dropping/ paint drips 	
30.	Gap between window leaf and frame	<ul style="list-style-type: none"> No rattling noise and wind howling No sign of rainwater seepage No visible gap 	
31.	Sealant works	Complete seal and with neat edges	
32.	Hinges, handles, locking devices	In correct position/ good fit/ good working order.	
33.	Operation	Ease of opening and closing	
34.	Cleaning	Conform to ADOC's specifications	
35.	Work acceptance	Conform to ADOC's specifications	
36.	Final protection	Conform to ADOC's specifications	
WATER-TIGHTNESS TEST TO WINDOWS			
37.	Conduct in-house water tightness test	No seepage	
LEGEND			
	MC – Main contractor	ADOC – Architect/ Designer/ Owner/ Clerk-of-works	

