

**TECHNICAL STATEMENT**

# **MODULAR ACCESS SYSTEMS**



# TECHNICAL STATEMENT

## Aluminium extrusion

Criteria	Data
180 Extrusion	Aluminium grade 6005A-T5
80 Extrusion	Aluminium grade 6005A-T5
60 Extrusion	Aluminium grade 6106-T6
Bracing straps	Aluminium grade 6106-T6
Walkway mesh	Aluminium grade 6106-T6
Handrail	Aluminium grade 6106-T6
Kneerail	Aluminium grade 6106-T6
Toe board	Aluminium grade 6106-T6
Stainless steel brackets	Stainless steel grade 316
Aluminium brackets	Aluminium grade 5083-T5

## Platform loads

Criteria	Data	Notes
Live load	2.5kPa	In accordance with AS1657:2018.
Concentrated loading	1.1kN	Applied through 100 x 100 pad at any point.
Mesh slip rating	R11	
Max free standing height	6000mm	Subject to Kattsafe technical advice.
Platform support spans	80 Series 600 Series (W) Platform - 3300mm max spacing 900 Series (W) Platform - 2700mm max spacing 1200 Series (W) Platform - 2500mm max spacing  180 Series 600 Series (W) Platform - 6000mm max spacing 900 Series (W) Platform - 5500mm max spacing 1200 Series (W) Platform - 5100mm max spacing	Deflection limited to the span length divided by 100.
Platform mesh openings	Personnel access under platform.	Where personnel is required to access underneath platform narrow mesh (GW334) must be used.

## Stair loads

Criteria	Data	Notes
Live load	2.5kPa	Applied to tread and landing.
Deflection	L/100 or 40mm	Whichever is the lesser.
Tread loadings	2.2kN per lineal metre or a concentrated loading of 1.5kN.	In accordance with AS1657:2018 Section 7.1.1.
Max stair treads	17 treads, 18 risers	In accordance with AS1657:2018.
Stair widths	Max 1500mm wide	
Stair angles	26 degrees to 44 degrees	Ideal angle is 40 degrees. Angle can be increased to reduce footprint.
Stair risers	Riser : $130 < R < 225$ Going : $215 < G < 355$ Combination : $540 < (2R + G) < 225$	All risers and goings in the same flight of stairs shall be of uniform dimensions within a tolerance of + 5mm.
Limitations of use	Not suitable for BCA / NCC stair design.	

## Design wind criteria

Criteria	Data
Region	A1
Regional Gust Wind Speed	V100 = 41m/s
Terrain Category	2
Topographical Multiplier	MT = 1.0
Terrain/Height Multiplier	Mzcat = 0.96
Shielding Factor	MS = 1.0

## Fasteners

Criteria	Data
Material	Stainless Steel 316
T-bolt	M10 x 25mm, 316 SS
Nut torque	60Nm

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## Handrail

Criteria	Data	Notes
Platform guardrail post spacing	2000mm max	
Max handrail height	1000mm	Typically 987mm standard from deck to top of handrail
Kneerail height below top rail	450mm from top of kneerail to underside of kneerail.	
Platform toe board	Use GW320 100mm high	Required if an object could fall from a platform or landing onto an area to which access by persons is available.
Limitations of use	Not suitable for BCA / NCC stair design.	

## Dissimilar metals

Criteria	Data	Notes
Aluminium to concrete	To be painted with a bitumen paint.	
Aluminium to roof deck	Shall be separated with EPDM tape.	
Aluminium to stainless steel	Brackets to be powder coated or EPDM separated.	This does not apply to fasteners. Ref AS/NZS 1664.1:1997 Section 5.1

## Weight

Criteria	Data	Notes
Walkway mesh 13mm x 600mm wide	6.5kg / m <sup>2</sup>	
80 Extrusion	Approx 2.8kg / m	
180 Extrusion	Approx 4.2kg / m	
Platform including walkway mesh	Approx 18kg / m <sup>2</sup> (Excluding handrails)	This is an approximate weight only. Depending on different combinations this can vary.