

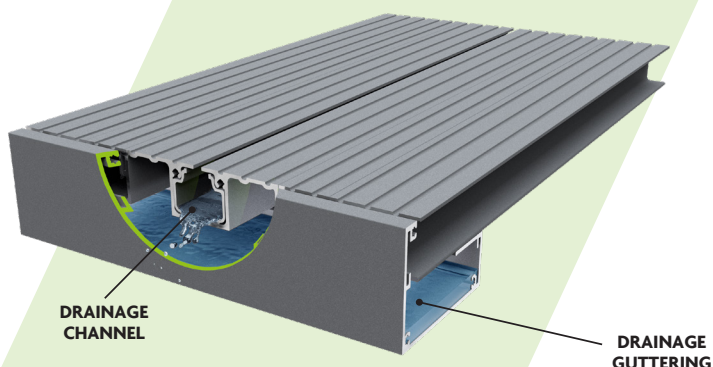
AliDeck

BALCONY DRAINAGE SYSTEM

Specification Datasheet

Flow Rate Test Results

Standard: BS EN 12056-3:2000 Part 3 (See Notes)
ROOF AREA 7.5 SQ. M (5.0 M X 1.5 M)
PITCH: NONE
RAINFALL INTENSITY: 0.06 L/S/SQM (estimated for 1:50 including climate change allowance of 30%)



Drainage Channel

- Drainage between board (to limit pooling)
- Approx. 8 channels per m.
- Single channel size taken as 590 sq. mm giving total of 4720 sq. mm of drainage (and outlet)
- Outlets (8) spread across gutter length

Test Results:

Gutter flow rate required: 0.11 l/s
Gutter flow rate achieved: 0.63 l/s

Outlet flow rate required: 0.23 l/s
Multiple outlets achieve approx. max 0.20 l/s*

*Excess - run off from surface of boards.

Conclusion:

The board should prevent pooling in normal conditions.
When conditions exceed the capacity of the channels the surplus will need to run off the surface of the board.

20mm Drainage Gutter

Test Notes:

Drainage to down pipes.
Two 63 mm outlet to end
Channel size: 76 mm x 27 mm

Length 5.0 m.
Outlet 63 mm outlet (3117 sq. mm)

Test Results:

Gutter flow rate required: 0.23 l/s
Gutter flow rate achieved: 0.31 l/s

Outlet flow rate required: 0.23 l/s
Gutter flow rate achieved: 0.38 l/s

Test Notes:

Drainage to down pipes.
One 63 mm outlet to end
Channel size: 76 mm x 27 mm

Length 5.0 m.
Outlet 63 mm outlet (3117 sq. mm)

Test Results:

Gutter flow rate required: 0.45 l/s
Gutter flow rate achieved: 0.27 l/s

Outlet flow rate required: 0.45 l/s
Gutter flow rate achieved: 0.38 l/s
(insufficient for 0.06 l/s/sqm)

30mm Drainage Gutter

Test Notes:

Drainage to down pipes.
One 63 mm outlet to end
Channel size: 76 mm x 37 mm

Length 5.0 m.
Outlet 63 mm outlet (3117 sq. mm)

Test Results:

Gutter flow rate required: 0.45 l/s
Gutter flow rate achieved: 0.47 l/s

Outlet flow rate required: 0.45 l/s
Gutter flow rate achieved: 0.61 l/s

Conclusion:

The AliDeck Drainage Gutter should provide drainage in normal conditions with a single outlet. The AliDeck gutter itself appears capable in the most conditions if the outlet(s) can cope. When conditions exceed the capacity of the channel, as shown above, the surplus water (overflow) will require to be catered for by other means.

NOTES:

(BS EN 12056-3:2000 Part 3):
4.2.2 l/s/sqm ranges from .01 to .06
Down pipe flow rates for code (f = 033): diameter 65 = 3.4 l/s
Fig NB.1 - 1:1 flow rate 0.022 l/s/sqm
Fig NB.1 - 1:1 plus 30% flow rate 0.028 l/s/sqm
Fig NB 2 - 1:5 flow rate 0.032 l/s/sqm
Fig NB 2 - 1:5 plus 30% flow rate 0.042 l/s/sqm
Fig NB 3 - 1:50 flow rate 0.056 l/s/sqm
Fig NB 3 - 1:50 plus 30% flow rate 0.0728 l/s/sqm

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