

# Slip Resistance Test Report: A2 EazyDeck XL Aluminium Decking

BM Architectural prioritises safety and compliance, ensuring our products are tested to industry standards as required. This commitment provides our customers and end users with confidence in the reliability and quality of our solutions.

## Conclusion: Low Slip Potential

The results of testing confirm that the A2 EazyDeck XL aluminium decking presents a low slip risk in both wet and dry conditions for shod and barefoot pedestrians. With proper maintenance and monitoring, it remains a safe and reliable choice for pedestrian surfaces in both residential and commercial applications.

## Testing Overview

The slip resistance of A2 EazyDeck XL aluminium decking was evaluated according to the UK Slip Resistance Group Guidelines (Issue 6, 2024) and BS EN 16165: 2021. Testing was performed using both Slider 96 (for shod pedestrians) and Slider 55 (for barefoot pedestrians). Measurements were taken in three directions under wet and dry conditions.

## Test Methodology

**Microroughness Testing:** Surface microroughness (Rz) was measured using a calibrated meter, with 10 readings taken per sample in three directions.

**Pendulum Testing:** The Pendulum Test Value (PTV) was recorded for each direction using Slider 96 and Slider 55.

**Environmental Conditions:** Testing was performed on level samples at an ambient temperature of 19°C.

**Verification:** The pendulum instrument was verified before use, with level, zero, and scale plate number checks completed before each test.

## Test Results

### Surface Microroughness (Rz) Measurements

Sample	Mean Rz (µm)	Slip Risk (Wet Condition)
Sample 1	37.3 µm	Low
Sample 2	40.3 µm	Low
Sample 3	37.7 µm	Low

A value above 20 µm indicates a low slip potential in wet conditions.

**Pendulum Test Values (PTV) – Slider 96 (Shod Pedestrians)**

Sample	Direction	Condition	PTV	Slip Risk
Sample 1	1	Dry	50	Low
Sample 2	2	Dry	52	Low
Sample 3	3	Dry	53	Low
Sample 1	1	Wet	48	Low
Sample 2	2	Wet	48	Low
Sample 3	3	Wet	46	Low

**Pendulum Test Values (PTV) – Slider 55 (Barefoot Pedestrians)**

Sample	Direction	Condition	PTV	Slip Risk
Sample 1	1	Dry	58	Low
Sample 2	2	Dry	73	Low
Sample 3	3	Dry	80	Low
Sample 1	1	Wet	41	Low
Sample 2	2	Wet	40	Low
Sample 3	3	Wet	40	Low

A PTV of 36 or above indicates a low potential for slips.

**Key Observations (in addition to conclusion section above)**

**Environmental Factors:** The performance of the surface may change over time due to wear, contaminants, and environmental conditions.

**Slope Considerations:** If installed on a slope, a higher PTV is required to maintain safety. The recommended adjustment for slopes is  $100 \times \tan(\alpha)$ , where  $\alpha$  is the angle of inclination.

**Recommendations for Best Performance**

**Periodic Testing:** It is advisable to test installed surfaces after initial wear to assess slip resistance in real-world conditions.

**Cleaning and Maintenance:** Regular cleaning is essential to maintain slip resistance. A dry surface after cleaning reduces the risk of slipping.

**Environmental Awareness:** The presence of contaminants such as oil, grease, food residue, moss, and wet footwear can impact slip resistance.

*Testing completed in Sheffield on 16/09/2024 by Dr. S C Thorpe, Olver & Rawden, Consulting and Forensic Engineers*