

TECHNICAL REPORT

Polyflor Ltd PO Box 3 Radcliffe New Road Whitefield Manchester M45 7NR United Kingdom	SATRA reference:	FLO2031982	
		2545	1
	Report ID/Issue number:	57203/1	
	Your reference:	2285007	
	Date samples received:	03/11/2025	
	Date(s) work carried out:	03/11/2025 to 10/11/2025	
	Date of report:	10/11/2025	

Testing Requirements

Testing of one product, described by the customer as "Polysafe Apex" to EN 16165:2021 Annex C, using Slider 96 and \neq surface roughness measurements (Rz) in accordance with \neq UKSRG Guidelines Issue 6:2024.
Assessed in accordance with \neq UKSRG Guidelines Issue 6:2024,.

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Report Signed by:

Reece Johnson



Report Signatory

**TESTING OF ONE PRODUCT DESCRIBED BY THE CUSTOMER AS
"POLYSAFE APEX" TO EN 16165:2021 ANNEX C - USING SLIDER 96 AND
≠ SURFACE ROUGHNESS (RZ) IN ACCORDANCE WITH ≠ UKSRG GUIDELINES
ISSUE 6:2024. ASSESSED IN ACCORDANCE WITH THE
≠ UKSRG GUIDELINES ISSUE 6:2024.**

As requested by Polyflor Limited, SATRA has conducted an assessment of the slip resistance of a sample of flooring as detailed below.

CONCLUSION

The product referenced "Polysafe Apex" has demonstrated a low slip potential under wet test conditions in the worst performing direction tested and a low slip potential under dry test conditions in the worst performing direction tested, when tested to EN 16165:2021 Annex C and assessed in accordance with the ≠ UK Slip Resistance Group guidelines, Issue 6:2024.

SAMPLE SUBMITTED

Sample reference: "Polysafe Apex" ⁽¹⁾
Nominal Thickness: "2.5 mm" ⁽¹⁾
Weight per Unit Area: "3.15 kg/m²" ⁽¹⁾
Batch No: "1A708" ⁽¹⁾
Shade: "4204 Breccia" ⁽¹⁾
Description of surface: Flooring with particle based enhanced slip resistance.
Appearance:



Date conditioning started: 03 November 2025
Testing completed: 10 November 2025
Testing conducted by: Imogen Sheppard

TESTS CARRIED OUT

- EN 16165:2021. Determination of slip resistance of pedestrian surfaces – Methods of evaluation - Annex C. Pendulum Test ^(2,3,4)
- ≠ Surface Roughness measurements (Rz) in accordance with the ≠ UKSRG Guidelines – Issue 6:2024.

Note(s):

- (1) Information supplied by the customer. Not verified by SATRA.
- (2) The samples were conditioned, and testing was conducted at $(23 \pm 2) ^\circ\text{C}$ and $(50 \pm 5) \% \text{RH}$. Surface temperature measured prior to testing was $22.5 ^\circ\text{C}$.
- (3) Results have been assessed in accordance with the ≠ UK Slip Resistance Group Guidelines – Issue 6:2024.
- (4) The median value is calculated over the final five measurements from a set of eight measurements.
- (5) Surface roughness measurements have been included at the customer's request
- (6) The surface roughness measurements have been taken from an area 75mm x 75mm with meter oriented in three directions.
- (7) The average surface roughness has been calculated from the three highest measurements, at the request of the customer.

VERIFICATION

Before testing commenced a verification of the pendulum tester was conducted as per EN 16165:2021 Annex C;

Verification as per EN 16165:2021 Annex C (10/11/2025)

Verification Readings		1	2	3	4	5	6	7	8	Median ⁽⁴⁾
Glass Plate (PVS-1)	WET	8	7	7	6	7	6	7	7	7
Pavigres Tile (PVS-2)		39	38	38	38	38	38	38	37	38
Pink Lapping Film (PVS-3)		60	62	61	61	61	62	60	59	61

Verification requirements from EN 16165:2021 Annex C

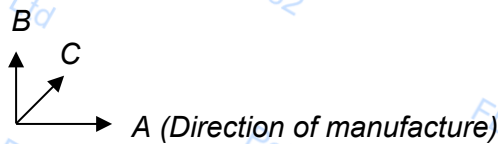
Verification Surface	Assigned value of verification surface (PTV in wet conditions)	Acceptance criteria for verification surface and measured value (PTV in wet conditions) slider 96
Float Glass Plate	8	± 2
Pavigres Tile	36	± 2
Pink Lapping Film	63	± 3

RESULTS

Table 1. EN 16165:2021 Annex C – Pendulum Test. (Using Slider 96)

Sample	Condition	Median ⁽⁴⁾ slip measurement (PTV ₉₆)		
		Direction of Test		
		A	B	C
"Polysafe Apex"	Dry	63	64	64
	Wet (water)	57	53	54

Direction of Test



The following table contains the classification guidelines as recommended by the \neq UK Slip Resistance Group Issue 6:2024.

Table 2. Guidelines for slip potential classifications for PTV, as stated in the \neq UK Slip Resistance Group Guidelines Issue 6:2024.

Slip potential	PTV
High slip potential	0-24
Moderate slip potential	25-35
Low slip potential	36+

RESULTS CONTINUED

≠ Surface Roughness Measurements (Rz)

The surface roughness was measured in accordance with the ≠ UKSRG Guidelines Issue 6:2024. Deviating from the guidelines, the average was also taken from the 3 highest measurements ⁽⁷⁾

Table 3. ≠ Surface Roughness measurements (Rz) ^(3,5,6,7)

Roughness Measurements	1	2	3	4	5	6	7	8	9	10	Avg Rz	Avg ⁽⁷⁾
Rz Values (µm)	59.2	71.9	49.5	63.2	63.5	67.5	52.7	103.8	45.8	64.8	64.2	81.1

The average value achieved for the surface roughness would suggest that the floor covering submitted for testing has a low slip potential in the wet conditions, as detailed in Table 4 below.

The average of the three highest measurements ⁽⁷⁾ achieved for surface roughness would also suggest that the floor covering submitted for testing has expected low slip potential in water-wet conditions, as detailed in Table 4 below.

Table 4. Guidelines for surface roughness classification. Expected slip potential in water-wet conditions. (≠ UK Slip Resistance Group Guidelines Issue 6:2024).

Slip potential	Rz value
High slip potential	Below 10 µm
Moderate slip potential	10 – 20 µm
Low slip potential	20 + µm

It is important to understand that the surface roughness measurements should not be taken in isolation and that the pendulum test results take precedence when assessing slip potential.

'In any complaint involving slip, the floor surface, the footwear and other environmental factors will all have an important bearing on slip resistance. It will be impossible to make either footwear or floorings slip resistant under all conditions which may be encountered in wear'.

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Where values for uncertainty of measurement are included within the report then the uncertainty of the corresponding results are based on a standard uncertainty multiplied by a coverage factor $k=2$, which provides a coverage probability of approximately 95%.

When reporting results against a conformance statement (Pass/Fail or the allocation of a class or level) then uncertainty of measurement is considered based on a non-binary acceptance which itself is based on the guard being equal to the expanded uncertainty.

Where the result corrected for uncertainty falls within the tolerance of the conformance statement then the risk of the conformance statement being a false accept or false reject is up to 2.5% and SATRA will in this instance quote a Pass/Fail, class, or level.

Where the result corrected for uncertainty falls outside of the tolerance of the conformance statement then the risk of the conformance statement being a false accept or false reject is up to 50%. In this instance SATRA will not provide a Pass/Fail statement or a class or level but will include information in the notes in relation to the result obtained.

Where a report includes results provided by a subcontracted laboratory and the subcontract lab has provided raw data results and uncertainty values then SATRA will apply the decision rules above. Where Uncertainty values have not been provided by the subcontract lab then decision rules will not be applied and SATRA will include a note to this effect clearly indicating the affected results.

SATRA's guidelines provide recommendations that are based upon SATRA's knowledge and experience. The guidelines are intended to indicate conformance by providing information on the likely performance or characteristics of a property. As such, uncertainty of measurement is not applied when evaluating results against guideline recommendations.
