

Laboratory Report

Assessment of KDF to the performance of [EN14877:2013] Laboratory test requirements for synthetic surfaces intended for Athletics facilities.

Product(s):

- POLTRACK SPRAYCOAT SYSTEM

Client:

Company	KDF - Kataskeves Dapedon LTD 1 Papanikolaou Ave., 57010 Thessaloniki - GREECE
Contact	Marie Nikolaidou

Description of Surface:

Supplier name: KDF - Kataskeves Dapedon LTD

Date: 21/4/2020

Systems installed:

- POLTRACK SPRAYCOAT SYSTEM



Summary:

A program of testing has been carried out on a Athletics system comprising of POLAPLAST P10, POLAPLAST P13, SBR 858, POLAPLAST P12, & EDPM 856, manufactured by KDF

Testing was performed to *[EN14877:2013] Laboratory test requirements for synthetic surfaces intended for athletics facilities.*

Reported By:

Grant Humphreys (Director)

Contents:

1. Introduction
2. Product details & description
3. Test Procedure
4. Test Results
5. Conclusion

1.Introduction:

Testing was performed to *[EN14877:2013] Laboratory test requirements for synthetic surfaces intended for athletics facilities.*

Results of the testing are designed to show the product complies to *[EN14877:2013] athletics.*

Testing of the product for performance requirements in order to determine the type of product to the *[EN14877:2013]* standard.

2.Product Details & Description:

Poltrack Spray Coat System, synthetic outdoor running track system.

- POLAPLAST P10 (polyurethane primer)
- POLAPLAST P13 (polyurethane binder)
- SBR 858 (granulometry of 0.5-2.5mm)
- POLAPLAST P12 (coloured polyurethane spray coating)
- EDPM 856 (granulometry 0.5-1.5mm)

3.Test Procedure:

The product was tested to the method given in *[EN14877:2013] Laboratory test requirements for synthetic surfaces intended for athletics facilities.*

tested at 23 degrees and 50% humidity (unless specifically stated for a specific test).

Samples were conditioned for 24 hrs prior to the test being undertaken.

The following test methods have been conducted within the scope of *[EN14877:2013] Laboratory test requirements for synthetic surfaces intended for athletics facilities.*

Athletics:

- | | |
|------------------------|--|
| - Friction | EN 13036-4 using CEN rubber under dry conditions (Wet and Dry) |
| - Shock absorption | EN 14808 (new and UV aged) |
| - Vertical Deformation | EN 14809 (new and UV aged) |
| - Water Permeability | EN 12616 |
| - Resistance To wear | EN 5470-1 using H18 (new and UV aged) |
| - Colour Loss | EN ISO 210105-AO2 (new and UV aged) |
| - Tensile Properties | EN 12230 (new and UV aged) |
| - Absolute thickness | EN 1969 (method A) |
| - Spike Resistance | EN 14810 (Not Tested) |

4. Test Results:

TESTS CONDITIONS

The dry conditions in a standard atmosphere at a temperature of $(23 \pm 2) ^\circ\text{C}$ and a humidity of $(50 \pm 5) \% \text{RH}$ are laboratory values. The UV weather samples were exposed for $(4\ 896 \pm 125)$ kJ, in a QUV chamber

NOTE An exposure of $(4\ 896 \pm 125)$ kJ will require approximately 2 000h UV exposure and takes approximately 3000 h with cycling to complete.

Friction to EN13036-4

Property	Units	Results	EN14877	Pass/ Fail
Wet	μ	55	(55-110)	Pass
Dry	μ	85	(80-110)	Pass

Shock Absorption to EN14808 (athletics: SA 25 to 34, SA 35 to 50)

Property	Units	Results	EN14877	Pass/ Fail
Force Reduction before Weathering	μ	42	Athletics: 35% to 50%	Pass
Force Reduction After Weathering	μ	42	Athletics: 35% to 50%	Pass

Vertical Deformation to EN14809

Property	Units	Results	EN 14877	Pass/ Fail
Dry	mm	2.7	Athletics: $\leq 3\text{mm}$	Pass

Water Permeability EN 12616

Property	Units	Results	EN 14877	Pass/ Fail
Water Perm.	mm/hr	1800	$\geq 150\text{mm/hr}$	Pass

Resistance To wear EN 5470-1 using H18

Property	Units	Results	EN 14877	Pass/ Fail
Before Weathering	Loss of grams	3.3 g	<4.0 g	Pass
After weathering	Loss of grams	3.5g	<4.0 g	Pass

Colour Loss EN ISO 210105-AO2 after UV testing

Property	Units	Results	EN 14877	Pass/ Fail
Colour Change	-	4/5	≥3	Pass

Tensile Properties EN 12230

Property	Units	Results	EN 14877	Pass/ Fail
Tensile Strength	MPa	0.405	≥0.40	Pass
Elongation	%	45%	≥40%	Pass
After Artificial Weathering				
Tensile Strength	MPa	0.40	≥0.40	Pass
Elongation	%	47%	≥40%	Pass

Absolute Thickness EN1969 (method A)

Nominal Thickness	Measured Thickness
14mm	14mm

4. Conclusion

The above tests have been conducted within the scope of [EN14877:2013] *Laboratory test requirements for synthetic surfaces intended for athletics facilities.*

The outdoor synthetic sports surface Poltrack Spraycoat System from, KDF has been found to comply with the following requirements of standards [EN14877:2013] *Laboratory test requirements for synthetic surfaces intended for Athletics facilities.*

the tested items:

Athletics:

- Friction EN 13036-4 using CEN rubber under dry conditions (Wet and Dry)
- Shock absorption EN 14808 (new and UV aged)
- Vertical Deformation EN 14809 (new and UV aged)
- Water Permeability EN 12616
- Resistance To wear EN 5470-1 using H18 (new and UV aged)
- Colour Loss EN ISO 210105-AO2 (new and UV aged)
- Tensile Properties EN 12230 (new and UV aged)
- Absolute thickness EN 1969 (method A)

Reviewed and Approved by:

Grant Humphreys

Director

Tel: +61 415 423 334

Email: admin@acoustoscan.com.au



Date: 21/7/2020