

# FIFA LABORATORY TEST REPORT

TM Football Turf | 2015 01.01.2015

Product	HYBRID XWR PRO		
FIFA Licensee	Nurteks Hali San.ve Tic. A.S.		
Test Institute	Labosport Italia S.r.l.		
Test Number	125888		
External Test Number	22-0177IT		
Date of Test	13.04.2022		
Test Result	Passed		
Quality Level	FIFA Quality & Quality PRO		
Test Type	Initial		



#### Licensee

Main Address

Name	Nurteks Hali San.ve Tic. A.S.
Address	Nurteks Hali San.ve Tic. A.S. Yesilköy Mah. Atatürk Cad. EGS Bloklari No:12 B2 Blok Kat:4
ZIP / City	34149 / ISTANBUL
Website	
Contact Email	sales@nurteks.com.tr
Contact Phone	

#### Test institute

Main Address

Name	Labosport Italia S.r.l.	
Address	Labosport Italia S.r.l. Via Monza, 80	
ZIP / City	23870 / CERNUSCO LOMBARDONE	
Website	www.labosport.com	
Contact Email	labosport@labosport.it	
Contact Phone	+39/ 039 896 26 84	



#### Approval

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Test Institute Director	Roberto Armeni
Signature	Dulfun
Date	12.05.2022
Test Institute Engineer	Gabriele Greco
Signature	Solling
Date	12.05.2022



## 1 – Test Results

Vertical ball rebound FIFA Quality Vertical ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality Pro Reduced ball roll FIFA Quality Pro Reduced ball roll FIFA Quality Pro FIFA Quality Pro Shock absorption FIFA Quality Pro Shock absorption FIFA Quality Pro Deformation FIFA Quality Pro Deformation FIFA Quality Pro Deformation FIFA Quality Pro Rotational resistance FIFA Quality Pro Rotational resistance FIFA Passed Pa	Name	Concrete	Dogulé
Vertical ball rebound FIFA Quality Vertical ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Passed Pa	Name	Comment	Result
rebound FIFA Quality Vertical ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality FIFA Quality FIFA Quality Pro Reduced ball roll FIFA Quality Pro FIFA Quality Pro Passed FIFA Quality Pro Bassed FIFA Quality Pro Fotomation FIFA Passed FIFA P			
Quality Vertical ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality FIFA Quality Reduced ball roll FIFA Quality Pro Passed FIFA Quality Pro Passed Passed Passed Passed  Passed			Dd
Vertical ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality Pro Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Pro FIFA Quality Pro Passed FIFA Quality Pro Passed FIFA Quality Pro Passed FIFA Quality Pro Passed Passed Passed Passed Passed  Passed			Passed
rebound FIFA Quality Pro Angle ball rebound FIFA Quality Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality FIFA Passed  Passed  Auticut  FIFA Passed  Quality FIFA Passed  Auticut  FIFA Passed  FIFA Passed  Auticut  FIFA Passed  FIFA Passed  FIFA Passed  Auticut  FIFA Passed  FIF			
Quality Pro Angle ball rebound FIFA Quality Angle ball rebound FIFA Passed Quality Pro Reduced ball roll FIFA Quality Pro Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Pro Deformation FIFA Passed Quality Pro Rotational Passed Quality Pro Rotational Passed Quality Pro Rotational Passed Quality Pro Rotational Passed Quality Pro Skin / surface FIFA Passed Quality Pro Skin / surface Passed T-Test Details   Object Product Name			Daniel de la companya
Angle ball rebound FIFA Quality Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality Pro Reduced ball roll FIFA Quality Pro Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Pro Passed FIFA Quality Pro Passed FIFA Quality Pro Deformation FIFA Quality Pro Deformation FIFA Quality Pro Deformation FIFA Quality Pro Destance FIFA Quality Pro Destance FIFA Quality Pro Rotational Resistance FIFA Passed Quality Pro Rotational Resistance FIFA Passed Quality Pro Fortails Jobject Product Name Product Name HYRBID XWR PRO 132/6 Product ID - Synthetic Turf System - Performance infill BLACK SBR Stabilising infill SILICA SAND Shock-pad or elastic layer Sub-base composition  Passed I3.04.2022 Report created by Gabriele Greco Laboratory Test  Passed  Pa			Passed
rebound FIFA Quality Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Fo Shock absorption FIFA Quality Pro Passed			
Quality Angle ball rebound FIFA Quality Pro Reduced ball roll FIFA Quality Passed FIFA Quality Shock absorption FIFA Quality Pro Deformation FIFA Quality Pro Rotational Resistance FIFA Quality Pro Rotational Resistance FIFA Quality Rotational Resistance FIFA Quality Rotational Resistance FIFA Quality Pro Skin / surface Friction FIFA Rotational Resistance FIFA Rotational Rotational Resistance FIFA Ro			Darrad
Angle ball rebound FIFA Quality Pro  Reduced ball roll FIFA Quality Reduced ball roll FIFA Quality Pro  Shock absorption FIFA Quality FIFA Passed FIFA Passed FIFA Passed  Quality FIFA Quality FIFA Passed FIFA Passed FIFA Passed FIFA Quality FIFA Quality FIFA Passed			Passed
rebound FIFA Quality Pro Reduced ball roll FIFA Quality Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Shock absorption FIFA Quality Pro Passed Passed  Pass			
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Reduced ball roll FIFA Quality Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Shock absorption FIFA Quality FIFA Quality FIFA Quality FIFA Quality Pro Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / surface friction FIFA Quality Pro Fassed  Passed  Skin / surface FIFA Quality Pro  Skin / surface Friction  Froduct ID			Passed
FIFA Quality Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Shock absorption FIFA Quality Passed  Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro  Skin / surface friction  Skin / surface friction  Passed  I - Test Details   Object  Product Name Performance infill System Performance infill Shock-pad or elastic layer  Sub-base composition  Passed  Rigid engineered base  Passed  Rigid engineered base  Passed  Passed  1 - Test Details   Test Institute  Passed  P			
Reduced ball roll FIFA Quality Pro Shock absorption FIFA Quality Shock absorption FIFA Quality Pro Deformation FIFA Quality Deformation FIFA Quality Poformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / surface friction Skin abrasion Passed			Passed
FIFA Quality Pro Shock absorption FIFA Quality Shock absorption FIFA Quality Pro  Deformation FIFA Quality Deformation FIFA Quality Pro  Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / surface friction Skin abrasion Passed  1 - Test Details   Object Product Name Performance infill Stabilising infill Shock-pad or elastic layer Sub-base composition  Passed Pass			
Shock absorption FIFA Quality Shock absorption FIFA Quality Pro Deformation FIFA Quality Deformation FIFA Quality Passed Passed Passed  Passed			Passed
FIFA Quality Shock absorption FIFA Quality Pro Deformation FIFA Quality Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Passed  Quality Rotational resistance FIFA Passed  Passed  1 - Test Details   Object Product Name Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Stabilising infill Stabilising infill SiliCA SAND Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Report created by Gabriele Greco Laboratory Test			
Shock absorption FIFA Quality Pro Deformation FIFA Quality Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro  Rotational resistance FIFA Quality Rotational resistance FIFA Quality Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / surface friction Skin / surface friction Skin abrasion Passed  1 - Test Details   Object  Product Name HYRBID XWR PRO 132/6 Product ID Synthetic Turf System Performance infill Stabilising infill Stabilising infill Stabilising infill Stabilising infill Stabilising infill Silica Sand Stabilising infill Silica Sand Si	· •		Passed
FIFA Quality Pro Deformation FIFA Quality Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro  Skin / surface FIFA Quality Pro Skin / surface friction Skin abrasion  1 - Test Details   Object Product Name Product ID Synthetic Turf System Performance infill Shock-pad or elastic layer Sub-base composition 2 - Test Details   Test Institute Date(s) of test Report created by Laboratory Test  Passed  Passed P			
Deformation FIFA Quality Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Passed  Passed  Passed  1 - Test Details   Object  Product Name Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Stabilising infill Shock-pad or elastic layer Sub-base composition Rigid engineered base  Passed  1 - Test Details   Test Institute Date(s) of test Report created by Gabriele Greco Laboratory Test			Passed
Quality Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Passed  Passed  Passed  1- Test Details   Object  Product Name Product Name Product ID Synthetic Turf System Performance infill SluCA SAND  Shock-pad or elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test Report created by Laboratory Test  Passed  Pas			
Deformation FIFA Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / surface friction Skin abrasion Passed  1 - Test Details   Object Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Rigid engineered base Rabile Greco Laboratory Test  Passed Passe			Passed
Quality Pro Rotational resistance FIFA Quality Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro  Skin / surface friction Skin abrasion Passed  1 - Test Details   Object  Product Name HYRBID XWR PRO 132/6 Product ID Synthetic Turf System Performance infill BLACK SBR Stabilising infill SILICA SAND Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Report created by Laboratory Test  Passed Passed  Passed  HYRBID XWR PRO 132/6			
Rotational resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / Surface Friction Skin abrasion Passed  1 - Test Details   Object  Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute  Date(s) of test Report created by Laboratory Test  Passed			Passed
resistance FIFA Quality Rotational resistance FIFA Quality Pro Skin / surface friction Skin abrasion Passed  1 - Test Details   Object  Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute  Date(s) of test Report created by Laboratory Test  Passed Pass			
Quality Rotational resistance FIFA Quality Pro Skin / surface friction Skin abrasion Passed  1 - Test Details   Object Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Roder   Report created by Laboratory Test  Passed Passed Passed HYRBID XWR PRO 132/6 Passed  BLACK SBR SILICA SAND SILICA SAND SILICA SAND Rigid engineered base Gabriele Greco Laboratory Test  22-0177/IT			Passad
Rotational resistance FIFA Quality Pro Skin / surface friction Skin abrasion Passed  1 - Test Details   Object Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Rigid engineered base  Rabilising Gabriele Greco Laboratory Test  Passed Passed Passed Passed Passed Passed Passed Passed  Passed  Passed  Passed  Passed  Passed  Passed  Passed  Passed  Passed  Passed  Passed  Passed  SHYRBID XWR PRO 132/6  - SUB-DASE SILICA SAND			1 assect
resistance FIFA Quality Pro  Skin / surface friction  Skin abrasion  Passed  1 - Test Details   Object  Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Shock-pad or elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test Report created by Laboratory Test  Passed Passed Passed Passed HYRBID XWR PRO 132/6			
Quality Pro Skin / surface friction Skin abrasion Passed  1 - Test Details   Object Product Name Product ID Synthetic Turf System Performance infill Stabilising infill Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Rigid engineered base  Cabriele Greco Laboratory Test  Passed Passed Passed HYRBID XWR PRO 132/6			Passed
Skin / surface friction  Skin abrasion  Passed  1 - Test Details   Object  Product Name Product ID  Synthetic Turf System Performance infill Stabilising infill Stabilising infill Shock-pad or elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test Report created by Laboratory Test  Passed  Passed  Passed  Passed  Passed  BLACK SPR SLICA SAND  SILICA SAND  Rigid engineered base  13.04.2022  Gabriele Greco  Laboratory Test			1 dised
friction  Skin abrasion  Passed  1 - Test Details   Object  Product Name  Product ID  Synthetic Turf System  Performance infill  Stabilising infill  Shock-pad or elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test  Laboratory Test  Passed  HYRBID XWR PRO 132/6  -  SUB-BACK SBR  SILICA SAND  SILICA SAND  Rigid engineered base  13.04.2022  Gabriele Greco  22-0177IT			
Skin abrasion Passed  1 - Test Details   Object  Product Name HYRBID XWR PRO 132/6  Product ID -  Synthetic Turf System -  Performance infill BLACK SBR  Stabilising infill SILICA SAND  Shock-pad or elastic layer -  Sub-base composition Rigid engineered base  2 - Test Details   Test Institute  Date(s) of test 13.04.2022  Report created by Gabriele Greco  Laboratory Test 13.2017/TIT			Passed
1 - Test Details   Object  Product Name			Passed
Product ID  Synthetic Turf System  Performance infill  Stabilising infill  Shock-pad or elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test  Report created by  Laboratory Test  HYRBID XWR PRO 132/6   SUB-DECEMBER STAND  SILICA SAND   Rigid engineered base  13.04.2022  Gabriele Greco  Laboratory Test  22-0177IT			
Product ID - Synthetic Turf System - Performance infill BLACK SBR Stabilising infill SILICA SAND Shock-pad or elastic layer - Sub-base composition Rigid engineered base  2 - Test Details   Test Institute  Date(s) of test   13.04.2022 Report created by   Gabriele Greco Laboratory Test   22.0177IT			HYRBID XWR PRO 132/6
Synthetic Turf System  Performance infill  BLACK SBR Stabilising infill  SILICA SAND  Shock-pad or elastic layer  Sub-base composition  Performance infill  SILICA SAND  Rigid engineered base  13.04.2022  Report created by  Laboratory Test  22.0177IT			-
System Performance infill BLACK SBR Stabilising infill SILICA SAND Shock-pad or elastic layer Sub-base composition Rigid engineered base  2 - Test Details   Test Institute  Date(s) of test Report created by Gabriele Greco Laboratory Test			
Performance infill Stabilising infill SILICA SAND Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Report created by Gabriele Greco Laboratory Test  BLACK SBR SILICA SAND	-		-
Stabilising infill Shock-pad or elastic layer Sub-base composition  2 - Test Details   Test Institute Date(s) of test Report created by Laboratory Test SILICA SAND			BLACK SBR
Shock-pad or elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test Report created by Gabriele Greco  Laboratory Test			
elastic layer  Sub-base composition  2 - Test Details   Test Institute  Date(s) of test			5.2.3.3.3.
Sub-base composition  2 - Test Details   Test Institute  Date(s) of test			-
composition  2 - Test Details   Test Institute  Date(s) of test  Report created by  Laboratory Test  Rigid engineered base  Rigid engineered base  13.04.2022  Gabriele Greco			
2 - Test Details   Test InstituteDate(s) of test13.04.2022Report created byGabriele GrecoLaboratory Test22.0177IT			Rigid engineered base
Date(s) of test 13.04.2022 Report created by Gabriele Greco Laboratory Test 22.0177IT		stitute	
Report created by Gabriele Greco Laboratory Test 22-0177IT	•		13.04.2022
Laboratory Test 22-0177IT			
	report number		22-0177IT



Name	Comment	Result
Test Institute		22.047717
Project number		22-0177IT
3 - Product Declaration	on (Manufacturer)	
Manufacturer		Nurteks Halı San. Tic. As.
Tuft pattern		STRAIGHT
Yarn		
manufacturer		TenCate
yarn 1		
Product name,		MS D2 2200x3 XWR FIELD
code   yarn 1		GREEN, S17
Detailed tuft		
decitex (Dtex)		19500
[g/10000m]		
Pile yarn profile		er.
yarn 1		Elipse
Pile thickness (µ		350.0
m)   yarn 1		360.0
Pile colour (RAL)		DAI 420 40 20
value 1   yarn 1		RAL 120 40 30
Pile colour (RAL)		
value 2   yarn 1		-
Pile colour (RAL)		
value 3   yarn 1		-
Pile width (mm)		1.10
yarn 1		1.10
Number of	1504770	000000
tufts/m2   yarn 1	ISO1773	8260.00
Pile length (mm)	150 2540	50.00
yarn 1	ISO 2549	60.00
Pile weight (g/m2)	150 0543	745.00
yarn 1	ISO 8543	745.00
Pile yarn		
characterization		PE
yarn 1		
Pile yarn dtex		7000
yarn 1		7000
Yarn		
manufacturer		TenCate Thiolon B.V
yarn 2		
Product name,		MS D2 2200x3 XWR LIME
code   yarn 2		GREEN, S18
Pile yarn profile		Films
yarn 2		Elipse
Pile thickness (µ		360.0
m)   yarn 2		360.0
Pile colour (RAL)		DAI 110 40 40
value 1   yarn 2		RAL 110 40 40
Pile colour (RAL)		
value 2   yarn 2		-
Pile colour (RAL)		
value 3   yarn 2		
Pile width (mm)		1 10
yarn 2		1.10



Date: 13.04.2022

Name	Comment	Result
Number of	Comment	nesuit
tufts/m2   yarn 2	ISO1773	8260.00
Pile length (mm)		
	ISO 2549	60.00
yarn 2		
Pile weight (g/m2)	ISO 8543	745.00
yarn 2		
Pile yarn		DE.
characterization		PE
yarn 2		
Pile yarn dtex		7000.0
yarn 2		
Yarn		
manufacturer		TenCate
yarn 3		
Product name,		TN 5500/1 LIME GREEN
code   yarn 3		THE SOURCE CHILDREN
Pile yarn profile		Fibrile
yarn 3		Tibriic
Pile thickness (µ		120.0
m)   yarn 3		120.0
Pile colour (RAL)		LIME GREEN
value 1   yarn 3		Elivie dicelii
Pile colour (RAL)		_
value 2   yarn 3		_
Pile colour (RAL)		
value 3   yarn 3		-
Pile width (mm)		0.00
yarn 3		0.00
Number of	ISO1773	8260.00
tufts/m2   yarn 3	1301773	8260.00
Pile length (mm)	ISO 3540	60.00
yarn 3	ISO 2549	60.00
Pile weight (g/m2)	150 0542	505.00
yarn 3	ISO 8543	595.00
Pile yarn		
characterization		PE
yarn 3		
Pile yarn dtex		
yarn 3		5500.0
Primary backing		
Product name,		H18
code		
Primary backing		
Manufacturer		Tencate
Re-enforcement		
scrim   Product		_
name, code		
Re-enforcement		
scrim		_
Manufacturer		
Secondary	1	
backing   Product		SBR LATEKS
name, code		JUN LATERS
name, code		



Comment	Result
	Styron
	1200.0
	>40
	740
	3525.0
	3323.0
	Bonded
	Auka Flaar
	Ayka Floor
	Auto Floor
	Ayka Floor
	200
	200
	Helmetin
	SERTA TEKSTİL ÜRÜNLERİ
	SANAYİ VE PAZARLAMA
	LTD. ŞTİ.
	_
	-
	0.000
	NRT SBR RUBBER
	NURTEKS HALI SAN.
	TİC.AS.
	1 215
	1 - 3,15
FN 440FF	A2 D2
pren 14955	A2 - B3
EN 933-Part 1	1 - 3,15
	prEN 14955



Name	Comment	Result
Performance Infill	Comment	nesare
Bulk density	EN 1097-3	0.450
(g/cm3)	214 1037 3	0.450
Performance Infill		
Application rate		16.0
(kg/m2)		10.0
Stabilising Infill		
Product name,		SILICA SAND
code		SILICA SAIVO
Stabilising Infill		
Manufacturer		Emek, Fares Kum
Stabilising Infill		
Material type		SILICA
Stabilising Infill		
Material grading		0,315 - 0,8
Stabilising Infill		
Particle shape	prEN 14955	Round high sphericity – C1
Stabilising Infill		
Particle size range	EN 933-Part 1	0,315 - 0,8
Stabilising Infill		
Bulk density	EN 1097-3	1.50
(g/cm3)	LIN 1097-3	1.50
Stabilising Infill		
Application rate		20.0
(kg/m2)		20.0
Shockpad, E-layer		
Product name,		_
code		-
Shockpad, E-layer		
Manufacturer		-
Shockpad, E-layer		
Composition		-
Shockpad, E-layer		
Bulk density		0.00
(g/cm3)		0.00
Shockpad, E-layer		
Thickness	EN 1969	0.0
Shockpad, E-layer		
Shock absorption	FIFA 4a	0.0
(%)	TII A 40	0.0
Shockpad, E-layer		
Deformation	FIFA 5a	0.0
Shockpad, E-layer		
Tensile strength		0.00
(MPa)		
Shockpad, E-layer		
Mass per unit		0.0
area (kg/m2)		
Other, detail		-
3 – Test Results   Player	/ Surface Interaction	
Rotational	. Januara micardenom	
Resistance   Initial	27 - 48 Nm	41
Dry (Quality)	2, 10 14111	''
1-17 (4 55116)/	1	1



		-
Name	Comment	Result
Rotational		
Resistance   Initial	32 - 43 Nm	41
Dry (Pro)		
Rotational		
Resistance   Initial	27 - 48 Nm	40
Wet (Quality)		
Rotational		
Resistance   Initial	32 - 43 Nm	40
Wet (Pro)		
Rotational		
Resistance   after	22 42 Nm	42
simulated wear	32 - 43 Nm	43
3'000 cycles (5*)		
Rotational		
Resistance   after	22 42 N	
simulated wear	32 - 43 Nm	0
3'000 cycles (20*)		
Rotational		
Resistance   after	27 40 11	45
simulated wear	27 - 48 Nm	45
6'000 cycles (5*)		
Rotational		
Resistance   after		
simulated wear	27 - 48 Nm	0
6'000 cycles (20*)		
3 - Test Results   Product	dentification field prod	luct
Performance infill		
Theremographic		
analysis   Organic		64.8
[%] - Product		
Declaration		
Performance infill		
Theremographic		
analysis		
Inorganic [%] -		35.2
Product		
Declaration		
Performance infill		
Theremographic		
analysis		
Elastomer [%] -		58.7
Product		
Declaration		
4 - Product Identification		
Artificial Turf		
Carpet mass per		3270
unit area [g/m2]		
Artificial Turf		
Tufts per unit		8127
area [m2]		J
Artificial Turf		
Pile lenght above		60.0
backing [mm]		00.0
Ducking [illili]		



Name	C	Do could
Name	Comment	Result
Artificial Turf		1977
Pile weight [g/m2]		
Detailed tuft		
decitex (Dtex)		18850
[g/10000m]		
Artificial Turf		
Water		4716
permeability of		4710
carpet [mm/h]		
Artificial Turf		13
Free pile height		15
Performance infill		
Particle size		1,25 - 3,15
range [mm]		
Performance infill		10.00
Particle shape		A2 - B3
Performance infill		
Bulk density		0.470
[g/cm3]		
Performance infill		
Infill depth [mm]		47
Performance infill		
Thermographic		
analysis   organic		64
[%]		
Performance infill		
Theremographic		
		36
analysis		
inorganic [%]		
Stabilising infill		0.315 1.0
Particle size range		0,315 - 1,0
[mm]		
Stabilising infill		C1
Particle shape		
Stabilising infill		
Bulk density		1.49
[g/cm3]		
Shock pad / E-	if part of	
layer   Shock	supplied	0.0
absorption [%]	system	
Shock pad / E-	if part of	
layer	supplied	0.0
Deformation	system	
Shock pad / E-	if part of	
layer   Thickness	supplied	0.0
layer   Tillekiless	system	
		Due to different DSC
		devices and potential
		difference in the test
Other detail		method used, the shape
Other, detail		and peak temperatures of
		the DSC analysis may differ
		from the FIFA
		requirement.
		1 requirement.

Date: 13.04.2022



	1.5	
Name	Comment	Result
		Field Green Fibrillated
		UVA report SPORTSLABS
		number 17162/2366 issued
		on 16/12/2016.
5 – Test Results   Ball / Su	rface interaction	
Vertical Ball		
Rebound   Initial	0.6 - 1m	0.73
Dry (Quality)		
Vertical Ball		
Rebound   Initial	0.6 - 0.85m	0.73
Dry (Pro)		
Vertical Ball		
Rebound   Initial	0.6 - 1m	0.71
Wet (Quality)		
Vertical Ball		
Rebound   Initial	0.6 - 0.85m	0.71
Wet (Pro)		
Vertical Ball		
Rebound   after	0.6 - 0.85m	0.83
simulated wear	0.0 - 0.83111	0.83
3'000 cycles (5*)		
Vertical Ball		
Rebound   after	0.6 - 1m	0.86
simulated wear	0.6 - 1111	0.80
6'000 cycles (5*)		
Vertical Ball		
Rebound   after	0.6 - 0.85m	0.00
simulated wear	0.0 - 0.83111	0.00
3'000 cycles (20*)		
Vertical Ball		
Rebound   after	0.6 - 1m	0.00
simulated wear	0.6 - 1111	0.00
6'000 cycles (20*)		
Angle Ball	45 - 80 %	53
Rebound   Dry	45 - 80 %	33
Angle Ball	45 - 80 %	62
Rebound   Wet	45 - 80 %	62
Reduced Ball Roll		
Initial   Dry	4 - 10 m	6.3
(Quality)		
Reduced Ball Roll	4 - 8 m	6.3
Initial   Dry (Pro)	7 - 0 111	0.5
Reduced Ball Roll		
after simulated	4 - 8 m	7.1
wear   3'000 cycles	7 - 0 111	/.1
(5*)   Dry		
Reduced Ball Roll		
after simulated	4 - 8 m	7.3
wear   3'000 cycles	4-0111	1.5
(5*)   Wet		
Reduced Ball Roll		
after simulated	4 0 m	
wear   3'000 cycles	4 - 8 m	0.0
(20*) Dry		



Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (5*)   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (5*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (5*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (5*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)   Wet   Shock absorption   Initial   Dry   57 - 68 %   65.0   Columbia	N		D. 1
after simulated wear   3'000 cycles (20")   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (5")   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (5")   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (5")   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (20")   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (20")   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (20")   Wet   Shock absorption   Initial   Dry   57 - 68 %   65.0	Name	Comment	Result
Wear   3'000 cycles   2-8 m			
West   2000   West		4 - 8 m	0.0
Reduced Ball Roll   after simulated   wear   6'000 cycles   (5*)   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles   (5*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles   (25*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles   (20*)   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles   (20*)   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles   (20*)   Wet   Reduced Ball Roll   after simulated   4 - 12 m   0.0   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   Wet   (20*)   (	, ,		
after simulated wear   6'000 cycles (5*)   Dry   Reduced Ball Roll   after simulated wear   6'000 cycles (5*)   Wet   A - 12 m   7.8   7.8   Reduced Ball Roll   after simulated wear   6'000 cycles (5*)   Wet   A - 12 m   0.0   (20*)   Dry			
Wear   6'000 cycles   (5*)   Dry			
Section   Sect		4 - 12 m	7.6
Reduced Ball Roll   after simulated   wear   6'000 cycles (5*)   Wet   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)  Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)  Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)  Wet   A - 12 m   0.0	, ,		
after simulated wear   6 000 cycles (5*)   Wet Reduced Ball Roll   after simulated wear   6 000 cycles (20*)   Dry Reduced Ball Roll   after simulated wear   6 000 cycles (20*)   Dry Reduced Ball Roll   after simulated wear   6 000 cycles (20*)   Wet Shock absorption   Initial   Dry (Quality)   57 - 68 %   65.0    Shock absorption   Initial   Dry (Pro)   62 - 68 %   64.4    (Quality)   57 - 68 %   64.4    (Quality)   58 - 68 %   64.4    (Quality)   59 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   62 - 68 %   64.4    (Quality)   63 - 68 %   64.4    (Quality)   64 - 64 %   64 - 64 %    (Quality)   65 - 68 %   66 - 64 & 64 & 64 & 64 & 64 & 64 & 64 &			
Wear   6'000 cycles   4 - 12 m   7.8			
Wear   6 '000 cycles (5*)   Wet		4 - 12 m	7.8
Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)   Dry   Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)   Wet   Shock absorption   Initial   Dry   57 - 68 %   65.0			7.0
after simulated wear   6'000 cycles (20*)  Dry  Reduced Ball Roll   after simulated wear   6'000 cycles (20*)  Wet  Shock absorption   Initial   Dry (20*)  Wet  Shock absorption   Initial   Dry (Pro)  Shock absorption   Initial   Dry (Pro)  Shock absorption   Initial   Wet (Quality)  Shock absorption   62 - 68 % 64.4  (Quality)  Shock absorption   62 - 68 % 64.4  (Quality)  Shock absorption   62 - 68 % 64.4  (Quality)  Shock absorption   62 - 68 % 64.4  (Quality)  Shock absorption   62 - 68 % 64.4  (Quality)  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   62 - 68 % 64.4  Shock absorption   64 - 68 % 64.4  Shock absorption   67 - 68 % 64.20  Shock absorption   57 - 68 % 64.20  Other, detail	<u> </u>		
Wear   6'000 cycles (20*)   Dry   Reduced Ball Roll     after simulated   Wear   6'000 cycles (20*)   Wet     Shock absorption   Initial   Dry   57 - 68 %   65.0     Shock absorption   Initial   Dry (Pro)   62 - 68 %   64.4     (Quality)   Shock absorption   Initial   Wet (Pro)   62 - 68 %   64.4     (Quality)   Shock absorption   Initial   Wet (Pro)   62 - 68 %   64.4     (Quality)   Shock absorption   Initial   Wet (Pro)   62 - 68 %   64.4     (Quality)   Shock absorption   after simulated wear   3'000 cycles (5*)   Shock absorption   after simulated wear   3'000 cycles (20*)   57 - 68 %   58.4     Shock absorption   after simulated wear   6'000 cycles (5*)   57 - 68 %   58.4     Shock absorption   after simulated wear   6'000 cycles (20*)   57 - 68 %   67.90     Shock absorption   50°C   57 - 68 %   64.20     Cother, detail   -			
Wear   6 '000 cycles (20*)   Dry		4 - 12 m	0.0
Reduced Ball Roll   after simulated   wear   6'000 cycles (20*)  Wet   Shock absorption   Initial   Dry (Quality)   57 - 68 %   65.0   (20*)  Wet   Shock absorption   Initial   Dry (Pro)   62 - 68 %   65.0   (20*)  Shock absorption   Initial   Dry (Pro)   62 - 68 %   64.4   (20*)  Shock absorption   Initial   Wet (Pro)   62 - 68 %   64.4   (20*)  Shock absorption   Initial   Wet (Pro)   62 - 68 %   64.4   (20*)  Shock absorption   after simulated wear   3'000 cycles (5*)   62 - 68 %   62.2   (5*)  Shock absorption   after simulated wear   6'000 cycles (20*)   57 - 68 %   58.4   (5*)  Shock absorption   after simulated wear   6'000 cycles (5*)   57 - 68 %   58.4   (5*)  Shock absorption   after simulated wear   6'000 cycles (20*)   57 - 68 %   67.90   59°C   57 - 68 %   64.20   64.20   64.20   64.20   64.20   64.20   64.20   64.20   64.20   65.0   65			
after simulated wear   6'000 cycles (20*)  Wet Shock absorption   Initial   Dry (Quality) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Wet (Quality) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Wet (Pro) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Dry (Pro) Shock absorption   Initial   Wet (Pro) Sh			
Wear   6'000 cycles (20*)   Wet			
Wear   6'000 cycles (20*)   Wet		4 - 12 m	0.0
Shock absorption   Initial   Dry (Quality)   S7 - 68 %   65.0			
Initial   Dry (Quality)   57 - 68 %   65.0   65.0   65.0			
Quality   Shock absorption   Initial   Dry (Pro)   62 - 68 %   65.0			
Shock absorption		57 - 68 %	65.0
Initial   Dry (Pro)   62 - 68 %   65.0     Shock absorption			
Shock absorption		62 - 68 %	65.0
Initial   Wet (Quality)   S7 - 68 %   64.4		02 00 /0	65.6
Quality   Shock absorption			
Shock absorption         62 - 68 %       64.4         Initial   Wet (Pro)       62 - 68 %       64.4         Shock absorption         62 - 68 %       62.2         (5*)       62 - 68 %       62.2         Shock absorption         62 - 68 %       0.0         Shock absorption         62 - 68 %       57 - 68 %         Shock absorption         57 - 68 %       58.4         Shock absorption         57 - 68 %       0.0         Shock absorption         57 - 68 %       0.0         Shock absorption         57 - 68 %       67.90         Shock absorption         57 - 68 %       64.20         Other, detail       -       -		57 - 68 %	64.4
Initial   Wet (Pro)   62 - 68 %   64.4     Shock absorption   after simulated   62 - 68 %   62.2     Shock absorption   after simulated   62 - 68 %   0.0     Shock absorption   after simulated   62 - 68 %   0.0     Shock absorption   after simulated   57 - 68 %   58.4     Shock absorption   after simulated   57 - 68 %   0.0     Shock absorption   after simulated   57 - 68 %   0.0     Shock absorption   57 - 68 %   67.90     Shock absorption   50°C   57 - 68 %   64.20     Other, detail   -			
Shock absorption   after simulated wear   3'000 cycles (5*)       62 - 68 %       62.2         Shock absorption   after simulated wear   3'000 cycles (20*)       62 - 68 %       0.0         Shock absorption   after simulated wear   6'000 cycles (5*)       57 - 68 %       58.4         Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       67.90         Shock absorption   50°C       57 - 68 %       64.20         Chock absorption   -5°C       57 - 68 %       -         Other, detail       -		62 - 68 %	64.4
after simulated wear   3'000 cycles (5*)  Shock absorption   after simulated wear   3'000 cycles (20*)  Shock absorption   after simulated wear   6'000 cycles (5*)  Shock absorption   after simulated wear   6'000 cycles (5*)  Shock absorption   after simulated wear   6'000 cycles (20*)  Shock absorption   57 - 68 %  Shock absorption   57 - 68 %  Shock absorption   57 - 68 %  Chock absorption   57 - 68 %  Shock absorption   57 - 68 %  Chock absorption   57 - 68 %  Shock absorption   57 - 68 %  Chock absorption   57 - 68 %			
wear   3'000 cycles       62 - 68 %       62.2         Shock absorption   after simulated wear   3'000 cycles (20*)       62 - 68 %       0.0         Shock absorption   after simulated wear   6'000 cycles (5*)       57 - 68 %       58.4         Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
(5*)   Shock absorption   after simulated   wear   3'000 cycles (20*)		62 - 68 %	62.2
Shock absorption         after simulated         wear   3'000 cycles       62 - 68 %         (20*)       0.0         Shock absorption         57 - 68 %         after simulated       57 - 68 %         wear   6'000 cycles       57 - 68 %         (5*)       0.0         Shock absorption         57 - 68 %         Shock absorption         57 - 68 %         Shock absorption         57 - 68 %         Other, detail       -			
after simulated       62 - 68 %       0.0         wear   3'000 cycles       62 - 68 %       0.0         Shock absorption         57 - 68 %       58.4         Shock absorption         57 - 68 %       0.0         after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption         57 - 68 %       67.90         Shock absorption         57 - 68 %       64.20         Other, detail       -       -	` '		
wear   3'000 cycles       62 - 68 %       0.0         Shock absorption   after simulated wear   6'000 cycles (5*)       57 - 68 %       58.4         Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
Shock absorption   after simulated   wear   6'000 cycles (5*)     57 - 68 %     58.4		62 - 68 %	0.0
Shock absorption   after simulated wear   6'000 cycles (5*)       57 - 68 %       58.4         Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
after simulated wear   6'000 cycles (5*)       57 - 68 %       58.4         Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
wear   6'000 cycles       57 - 68 %       58.4         (5*)       5hock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
(5*)       Shock absorption   after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -		57 - 68 %	58.4
Shock absorption         after simulated         wear   6'000 cycles       57 - 68 %         (20*)       57 - 68 %         Shock absorption         57 - 68 %         Shock absorption         57 - 68 %         Other, detail       -			
after simulated wear   6'000 cycles (20*)       57 - 68 %       0.0         Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
wear   6'000 cycles       57 - 68 %       0.0         (20*)       5hock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -       -			
(20*)       Shock absorption         57 - 68 %       67.90         50°C       57 - 68 %       64.20         Shock absorption         57 - 68 %       -         -5°C       64.20       -		57 - 68 %	0.0
Shock absorption   50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
50°C       57 - 68 %       67.90         Shock absorption   -5°C       57 - 68 %       64.20         Other, detail       -			
Shock absorption   57 - 68 % 64.20 Other, detail -		57 - 68 %	67.90
-5°C			
Other, detail -		57 - 68 %	64.20
			-
		Surface interaction	



Name	Commont	Possilé
Name	Comment	Result
Deformation	4 44	40.0
Initial   Dry	4 - 11 mm	10.0
(Quality)		
Deformation	4 - 10 mm	10.0
Initial   Dry (Pro)		10.0
Deformation		
Initial   Wet	4 - 11 mm	8.9
(Quality)		
Deformation	4 - 10 mm	8.9
Initial   Wet (Pro)	4 - 10 mm	0.9
Deformation		
after simulated		
wear   3'000 cycles	4 - 10 mm	8.0
(5*)		
Deformation		
after simulated		
wear   3'000 cycles	4 - 10 mm	0.0
(20*)		
Deformation		
after simulated	4 - 11 mm	7.3
wear   6'000 cycles		
(5*)		
Deformation		
after simulated	4 - 11 mm	0.0
wear   6'000 cycles	- 11111111	0.0
(20*)		
Skin / surface	0.35 - 0.75 µ	0.64
friction   Dry	0.33 - 0.73 μ	0.04
Skin / surface		
friction   Dry	0.35 - 0.75 μ	0.65
3'000 cycles	·	
Skin / surface		
friction   Dry	0.35 - 0.75 µ	0.68
6'000 cycles		
Skin abrasion		
Dry	± 30 %	23
Skin abrasion		
Dry   3'000 cycles	± 30 %	26
Skin abrasion	± 30 %	28
Dry   6'000 cycles		
•	(arricial, light, water)	
Pile yarn 1		
Colour change	≥ Grey scale 3	4-5
after artificial		
weathering		
Pile yarn 2		
Colour change	≥ Grey scale 3	4
after artificial	_ 5.0, 500.0 5	
weathering		
Pile yarn 3		
Colour change	> Grovesala 2	4
after artificial	≥ Grey scale 3	4
weathering		
	l .	



Name	Comment	Result
Pile yarn 1   Peak		
Breakage Force		15.20
before artificial		15.20
weathering		
Pile yarn 1   Peak		
Breakage Force		45
after artificial		15
weathering		
Pile yarn 1   Peak		
Breakage Force		
Green Reference		15.20
value before		15.20
artificial		
weathering		
Pile yarn 1   Peak		
Breakage Force		
Variation after	Change ≤ 25	1.00
weathering from	%	1.00
Green Reference		
value		
Pile yarn 2   Peak		
Breakage Force		15.20
before artificial		15.20
weathering		
Pile yarn 2   Peak		
Breakage Force		15,3
after artificial		15,5
weathering		
Pile yarn 2  Peak		
Breakage Force		
Green Reference		15.20
value before		13.20
artificial		
weathering		
Pile yarn 2   Peak		
Breakage Force		
Variation after	Change ≤ 25	1.00
weathering from	%	1.00
Green Reference		
value		
Pile yarn 3   Peak		
Breakage Force		53.90
before artificial		33.30
weathering		
Pile yarn 3   Peak		
Breakage Force		45,0
after artificial		
weathering		
Pile yarn 3 Peak		
Breakage Force		
Green Reference		53.90
value before		
artificial		
weathering		

Date: 13.04.2022



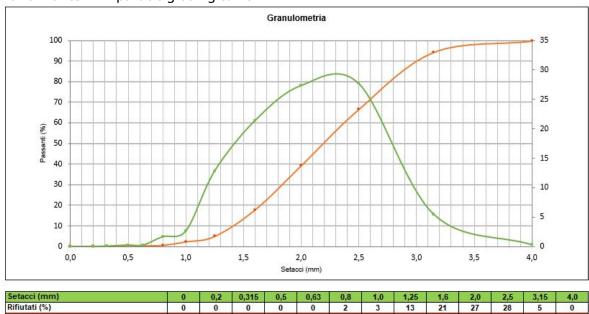
Name	C	DIt
Name	Comment	Result
Pile yarn 3   Peak		
Breakage Force   Variation after	Change + 25	
	Change ≤ 25	16.51
weathering from	%	
Green Reference		
value		
Polymeric infill		
Colour change   after artificial	≥ Grey scale 3	5
weathering		
Polymeric infill		
Visual change in		N. 1
composition	No change	No change
after artificial		
weathering		
Complete system	190 may /b	2502
Water	> 180 mm/h	3582
permeability		
Stitched joints	≥	
Strength   un-	1000N/100mm	0
aged		
Stitched joints	≥	
Strength   water	1000N/100mm	0
aged		
Bonded joints	75/400	400
Strength   un-	≥ 75/100mm	100
aged		
Bonded joints	75/400	02
Strength   water	≥ 75/100mm	93
aged		
Carpet tuft	4011	40
Withdrawal force	≥ 40N	48
un-aged		
Carpet tuft	. 401	42
Withdrawal force	≥ 40N	42
water aged		
Heat   Category	for	Category 3
	information	
7 - Miscellaneous (shock p	oad, sub-base - it part of	r tne system)
Shock Pad / E-		
layer   tensile	≥ 0.15 MPa	0.00
strength   un-		
aged		
Sub-base		-
Composition		
Sub-base   Particle		-
size range		
Sub-base   Particle		-
shape		
Sub-base		-
Thickness		
Sub-base		
Compaction &		-
test method		



Name	Comment	Result
Other, detail		-
<b>Turf   Product Report Det</b>	ails	
Shockpad, E-layer		No Shocknad
Type Category		No Shockpad
Performance Infill		
Material type		End of Life Tires Infill (ELT)
Category		
Splash		
Characteristics		≥ 1.5%
Category		

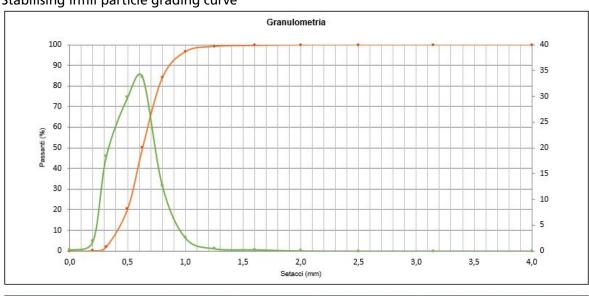


2 – Test Images
Performance infill particle grading curve





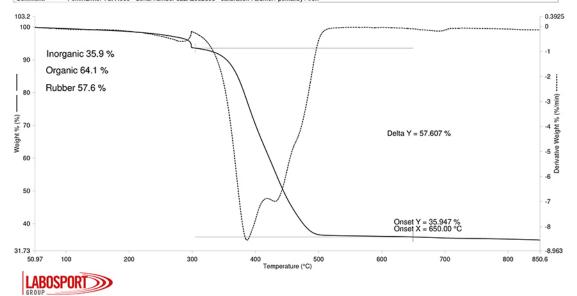
#### Stabilising infill particle grading curve











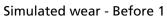
- 1) Hold for 1.0 min at 50.00°C 2) Heat from 50.00°C to 300.00°C at 15.00°C/min 3) Hold for 8.0 min at 300.00°C

4) Heat from 300.00°C to 650.00°C at 15.00°C/min 5) Heat from 650.00°C to 850.00°C at 25.00°C/min 6) Hold for 1.0 min at 850.00°C

22/04/2022 14:40:51

Date: 13.04.2022









Simulated wear - Before 2





Simulated wear - Before 3



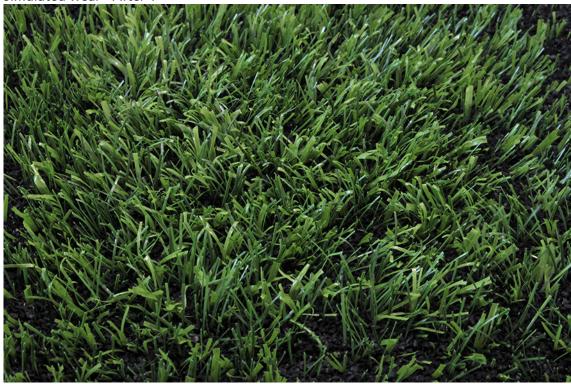


#### Simulated wear - Before 4





Simulated wear - After 1





Simulated wear - After 2

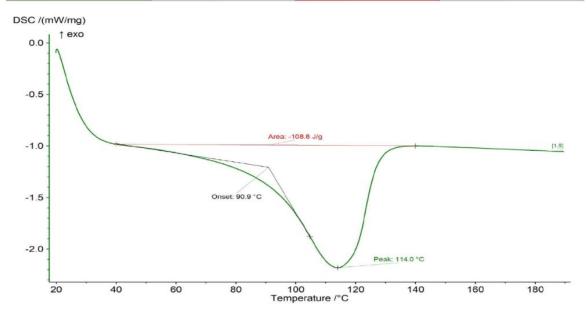




#### Yarn Characteristics DSC



Laboratory:	Labosport Italia Srl	Identity:	22-0177IT
Project:	22-0177IT	Sample:	VS
Operator:	Matteo	Sample mass:	6.54 mg
Date/Time:	13/04/2022 05:24:55	Serial number	DSC3500A-1254-L



TEST CYCLES:
1) Heat from 20,0 °C to 190,0 °C at 20,0 °C/min
2) Hold for 5,0 min at 190,0 °C

3) Cool from 190 °C to 20,0 °C at 20,0 °C/min 4) Hold for 5,0 min at 20,0 °

5) Heat from 20,0 °C to 190,0 °C at 20,0 °C/min NETZSCH DSC 3500 SERIES

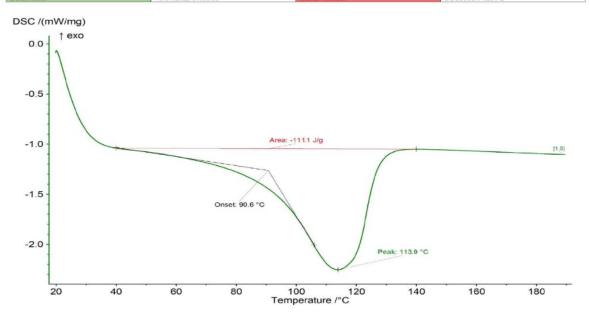
Date: 13.04.2022



#### Yarn Characteristics DSC - 2



Total Control of the	Laborated Malla Col	1.4 matters	00.0477IT
Laboratory:	Labosport Italia Srl	Identity:	22-0177IT
Project:	22-0177IT	Sample:	VC
Operator:	Matteo	Sample mass:	6.55 mg
Date/Time:	13/04/2022 04:38:09	Serial number	DSC3500A-1254-L



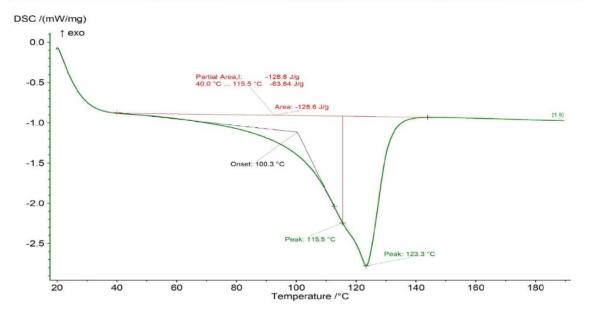
TEST CYCLES:		
<ol> <li>Heat from 20,0 °C to 190,0 °C at 20,0 °C/min</li> </ol>	<ol> <li>Cool from 190 °C to 20,0 °C at 20,0 °C/min</li> </ol>	<ol><li>Heat from 20,0 °C to 190,0 °C at 20,0 °C/min</li></ol>
<ol> <li>Hold for 5,0 min at 190,0 °C</li> </ol>	<ol> <li>Hold for 5,0 min at 20,0 °</li> </ol>	NETZSCH DSC 3500 SERIES



#### Yarn Characteristics DSC - 3



Laboratory:	Labosport Italia Srl	Identity:	22-0177IT
Project:	22-0177IT	Sample:	V FIBRILLATO
Operator:	Matteo	Sample mass:	6.59 mg
Date/Time:	13/04/2022 03:51:23	Serial number	DSC3500A-1254-L



TEST CYCLES:		
<ol> <li>Heat from 20,0 °C to 190,0 °C at 20,0</li> </ol>	°C/min 3) Cool from 190 °C to 20,0 °C at 20,0 °C/min	<ol> <li>Heat from 20,0 °C to 190,0 °C at 20,0 °C/min</li> </ol>
<ol> <li>Hold for 5.0 min at 190.0 °C</li> </ol>	4) Hold for 5.0 min at 20.0 °	NETZSCH DSC 3500 SERIES









Performance Infill - picture





