

TEST REPORT

14-0452IT

Issued on September 30th 2014

COMPANY

PROMIX SRL

PRODUCT NAME

PROGOM/SV BLACK

CATEGORY

PERFORMANCE INFILL

Tests according to:

EN 14836:2006 Synthetic surfaces for outdoor sports areas. Exposure to artificial weathering.

340nm/UVA

Reproduction of this Test Report is only authorised in its entirety.

The results are solely considered valid for the sample subjected to testing



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SUBJECT

Protocol for accelerated aging of yarns and infill by means of 2550h of exposure to UVA with QUV equipment

REFERENCE DOCUMENTS

UNI EN 14836:2006 Synthetic surfaces for outdoor sports areas. Exposure to artificial weathering

UNI EN ISO 4892-3:2006 Plastics -- Methods of exposure to laboratory light sources -- Fluorescent UV lamps

EN 20105/A02:1996 Textiles. Tests for colour fastness. Grey scale for assessing change in colour.

UNI EN 933-1:2012 Tests for geometrical properties of aggregates. Determination of particle size distribution. Sieving method

UNI EN 1097-3:1999 Tests for mechanical and physical properties of aggregates. Determination of loose bulk density and voids

STORAGE TIMES

Storage "Sine die" of specimens and documents

TEST PERFORMANCE CONDITION IN LABORATORY

Ambient temperature	Relative humidity
23 ± 2°C	50 % ± 5%

APPLICANT

COMPANY
ADDRESS

PROMIX SRL
Via 1° Maggio, 8
24040 Bonate Sotto (BG)

COUNTRY

Italy

ACQUISITION DATA

DATE ORDER RECEIVED	April 08 th 2014
DATE FIRST SAMPLE RECEIVED	April 07 th 2014
DATE LAST SAMPLE RECEIVED	April 07 th 2014
TEST START DATE	April 14 th 2014
TEST END DATE	September 12 th 2014

SAMPLE IDENTIFICATION

DECLARED VALUES

Manufacturer	Commercial name	Type
Promix Srl	PROGOM/SV BLACK	SBR

Particle size	Bulk density	Particle shape	Color
0.8 - 2.5	0.50	A2-B3	Black

SAMPLE'S PHOTO



LABORATORY RESULTS

COLOR FASTNESS

L*a*b coordinates on new sample											Mean
L	11.11	12.55	11.00	12.16	12.99	13.27	9.47	13.78	12.22	12.82	21.38
a	0.15	0.10	0.13	0.01	0.14	0.02	0.17	0.12	0.08	0.22	13.23
b	0.10	-0.12	0.06	-0.39	0.20	0.03	0.2	-0.29	0.13	0.12	10.6
L*a*b coordinates on UVA exposed sample											Mean
L	12.45	12.99	13.71	13.80	14.82	13.28	12.55	14.13	13.48	14.86	13.61
a	-0.10	-0.07	-0.20	0.05	0.00	0.11	0.17	0.10	0.02	-0.01	0.01
b	-0.47	-0.44	-0.50	-0.13	-0.46	-0.52	-0.34	-0.15	-0.48	-0.72	-0.42
ΔE values in comparison between new and aged sample											Mean
1.5	0.6	2.8	1.7	2.0	0.6	3.1	0.4	1.4	2.2	1.63	
Grey scale value											
4-5											

INFILL'S PHOTOS BEFORE AND AFTER UVA EXPOSURE

Before UVA exposure



After UVA exposure

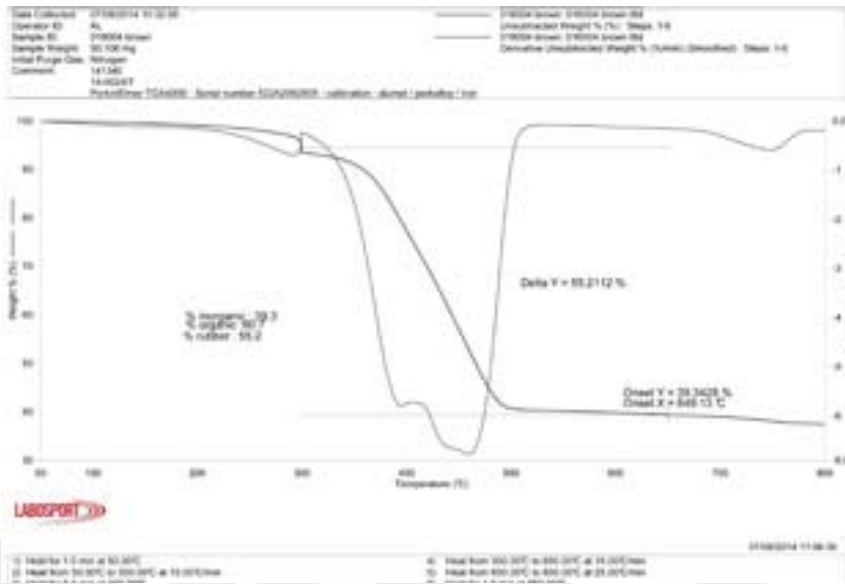


IDENTIFICATION TESTS

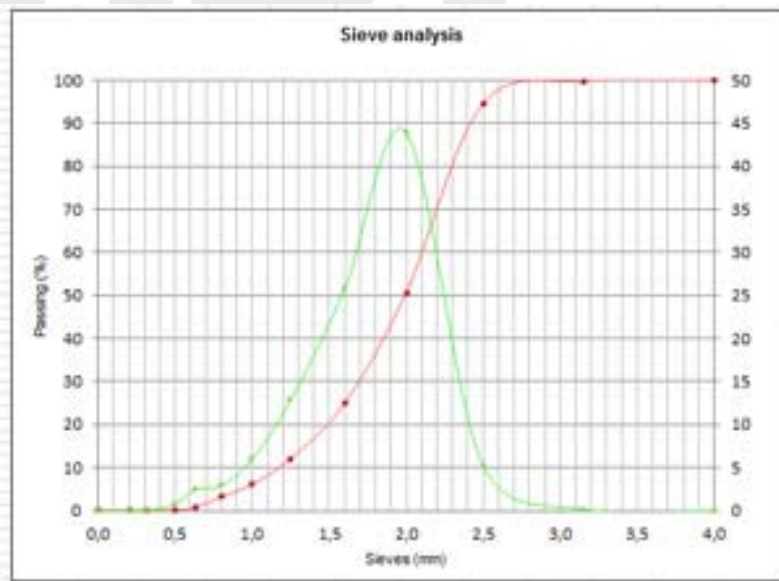
Particle size	Bulk density	Particle shape	Color
1.0 - 2.5	0.52	A2-B3	Black

INFILL GRAPHS

TGA BEFORE UVA EXPOSURE



SIEVE ANALYSIS



Sieves (mm.)	0	0,2	0,315	0,5	0,63	0,8	1	1,25	1,6	2	2,5	3,15	4,00
Refusal (%)	0	0	0	1	2	3	6	13	26	44	5	0	0
Passing (%)	0	0	0	0	1	3	6	12	25	51	95	100	100

APPARATUS USED

Plastics -- Methods of exposure to laboratory light sources -- Fluorescent UV lamps

Device	Brand	Model	Serial number	Sheet
QUV	Q Pannel	QUV/SE	06-13927-73-SE	STR009
Grey scale	RAL Farben	Digital 4	NA	STR151
TGA	NA	NA	NA	NA
Spectrophotometer	BYK-Gardner	Spectro guide	1057950	STR015

Tests for geometrical properties of aggregates. Determination of particle size distribution. Sieving method

Device	Brand	Model	Serial number	Sheet
Balance	Rad-Wag	PS6000/C/1	219667/08	STR043
Sieve	Matest	0.08mm	0306165	STR233
Sieve	Matest	0.2mm	0306164	STR234
Sieve	Matest	0.315mm	0306163	STR235
Sieve	Matest	0.4mm	0306166	STR236
Sieve	Matest	0.5mm	0276549	STR237
Sieve	Matest	0.63mm	0306162	STR232
Sieve	Matest	0.8mm	0306161	STR238
Sieve	Matest	1mm	0276548	STR239
Sieve	Matest	1.25mm	0306160	STR240
Sieve	Matest	1.6mm	0306159	STR241
Sieve	Matest	2mm	0276547	STR242
Sieve	Matest	2.5mm	0306158	STR243
Sieve	Matest	3.15mm	0276550	STR244
Sieve	Matest	4mm	0276544	STR246

ADDITIONAL INFORMATION

None

CONCLUSIONS

The product PROGOM/SV BLACK has been found to fully comply with the laboratory test requirements of FIFA and IRB Manual.

Laboratory Director
Roberto Armeni




Laboratory responsible
Davide Giorgini

