

# **TEST REPORT**

**19-0944IT**

Issued on November 19<sup>th</sup> 2020

*CLIENT*

**TRITOGOM SRL**

*PRODUCT NAME*

**TRITOGRAN 1-P-0,8-2,5**

*CATEGORY*

**PERFORMANCE INFILL**

**Tests according to:**

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

**5000 hours - 340nm/UVA**

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

*The results are valid only for the sample submitted to testing*



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## TESTS PROGRAM

Protocol for accelerated aging of infill by means of 5000h of exposure to UVA with QUV equipment.

## REFERENCE STANDARDS AND REGULATIONS

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

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.

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

EN 14955:2006 Surfaces for sports areas – Determination of composition and particle shape of unbound mineral surfaces for outdoor sports areas

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

## STORAGE TIMES

Storage of documents 4 years and samples 1 month from the issue of the report.

## SAMPLING

Sampling carried out by the customer.

## TEST PERFORMANCE CONDITION IN LABORATORY

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

## APPLICANT

COMPANY  
ADDRESS

TRITOGOM SRL  
Via del Lavoro - Fraz. Cappellazzo  
12062 Cherasco (CN)

COUNTRY

Italy

## ACQUISITION DATA

DATE ORDER RECEIVED	November 18 <sup>th</sup> 2019
DATE FIRST SAMPLE RECEIVED	December 03 <sup>rd</sup> 2019
DATE LAST SAMPLE RECEIVED	December 03 <sup>rd</sup> 2019
TEST START DATE	December 09 <sup>nd</sup> 2019
TEST END DATE	August 21 <sup>st</sup> 2020

## **SAMPLE IDENTIFICATION**

### **DECLARED VALUES**

<b>Manufacturer</b>	<b>Product name</b>	<b>Color</b>	<b>Type</b>
Tritogom Srl	Tritogran 1-P-0,8-2,5mm	Black	SBR

<b>Particle size</b>	<b>Bulk density</b>	<b>Particle shape</b>
0.8 - 2.5	0.485g/cm <sup>3</sup>	A2-B3

### **SAMPLE'S PHOTO**



## TESTS RESULTS

### COLOR FASTNESS

L*a*b coordinates on new sample											Mean
L	12,72	14,66	14,30	12,57	13,78	13,20	11,42	13,76	13,47	12,73	13,26
a	0,33	0,21	0,00	0,15	0,24	0,32	0,49	0,01	0,22	0,46	0,24
b	-0,27	-0,40	-0,82	-0,60	-0,44	-0,67	-0,02	-0,62	-0,29	-0,16	-0,43
L*a*b coordinates on UVA exposed sample											Mean
L	13,27	12,59	13,89	13,48	13,50	13,59	13,69	12,58	13,26	12,86	13,27
a	0,03	0,14	0,02	0,19	0,19	0,03	0,05	0,14	-0,02	0,14	0,09
b	0,49	-0,05	-0,19	0,25	0,05	0,14	0,01	0,12	-0,51	0,14	0,05
ΔE values in comparison between new and aged sample											Mean
1,0	2,1	0,8	1,2	0,6	0,9	2,3	1,4	0,4	0,5	0,5	
Grey scale value											5

### INFILL'S PHOTOS BEFORE AND AFTER UVA EXPOSURE

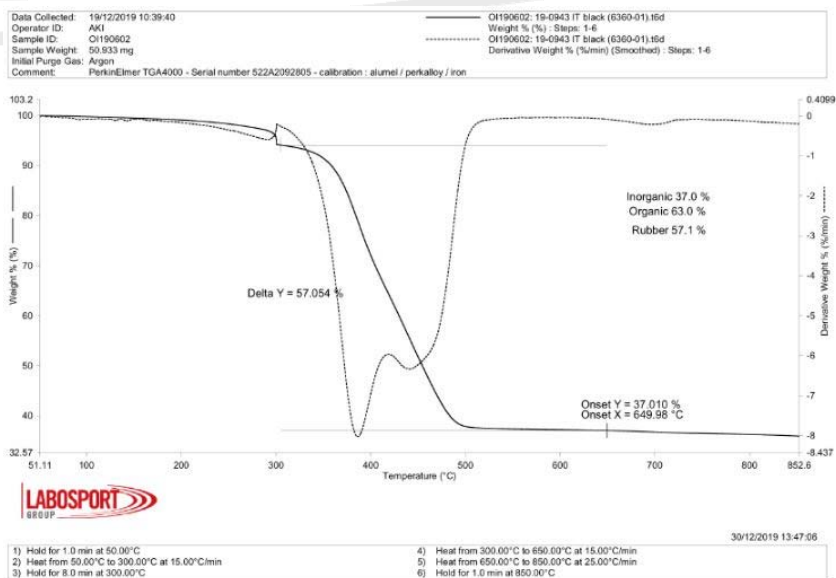
Before UVA exposure



After UVA exposure



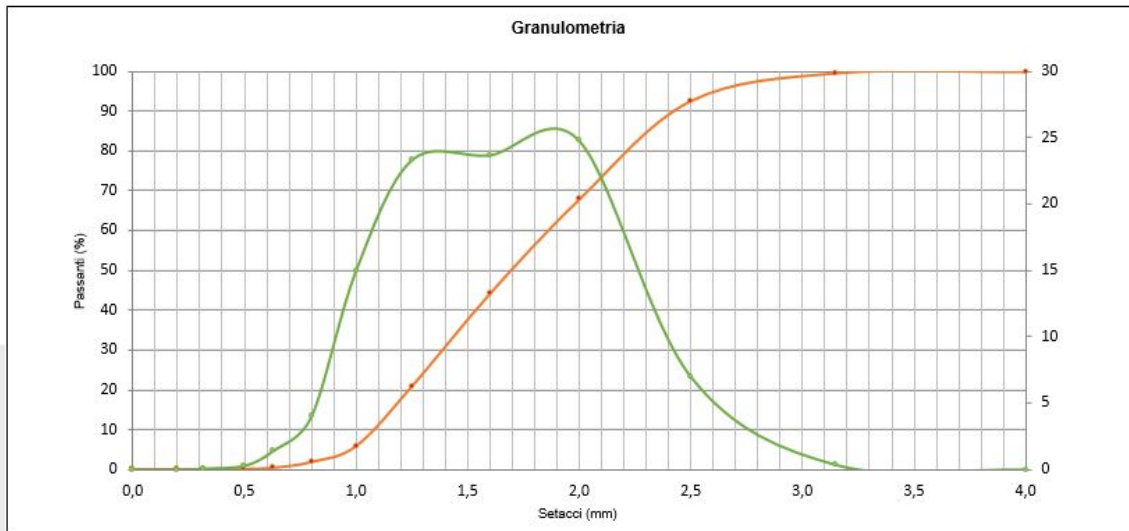
### TGA GRAPH BEFORE UVA EXPOSURE



## IDENTIFICATION RESULTS

Particle size	Bulk density	Particle shape
1,0 - 2,5mm	0.42g/cm <sup>3</sup>	A2-B3

## PARTICLE SIZE GRAPH



Setacci (mm)	0	0,2	0,315	0,5	0,63	0,8	1,0	1,25	1,6	2,0	2,5	3,15	4,0
Rifiutati (%)	0	0	0	0	1	4	15	23	24	25	7	0	0
Passanti (%)	0	0	0	0	0	2	6	21	44	68	93	100	100

## ADDITIONAL INFORMATION

The tested product "Tritogran 1-P-0,8-2,5mm" by Tritogom srl has been found to fully comply with the FIFA Manual 2015 edition requirements and World Rugby Manual 2016 edition.

## CONCLUSIONS

None

Laboratory Director  
 Roberto Armeni




Laboratory Manager  
 Davide Giorgini

