

TEST REPORT

15-0545IT

Issued on December 22nd 2015

CLIENT

CHIMIVER PANSERI SPA

PRODUCT NAME

VARIOUS

TYPE

JOINTS

Test according to:

EN 12228:2013 Surfaces for sports areas – Determination of joint strength of synthetic surfaces

CENT/TS 16384:2012 Leaching Test

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The results are valid only for the submitted samples as described in this report.



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SCOPE OF THE TEST PROGRAMME

The joints (samples submitted) were tested in accordance to UNI EN 12228:2013 and the CENT/TS 16384:2012, using the following test procedures.

DOCUMENTS OF REFERENCE

STANDARDS USED

EN 12228:2013 Surfaces for sports areas - Determination of joint strength of synthetic surfaces

EN 13744:2005 Surfaces for sports areas - Procedure for accelerated ageing by immersion in hot water

CENT/TS 16384:2012 Leaching Test

STORAGE TIMES

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

SAMPLING

Sampling is performed by the customer.

ENVIRONMENTAL CONDITIONS IN THE LABORATORY

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

CLIENT

COMPANY
ADDRESS

CHIMIVER PANSERI SPA

Via Bergamo, 1401
24030 Pontida (BG)

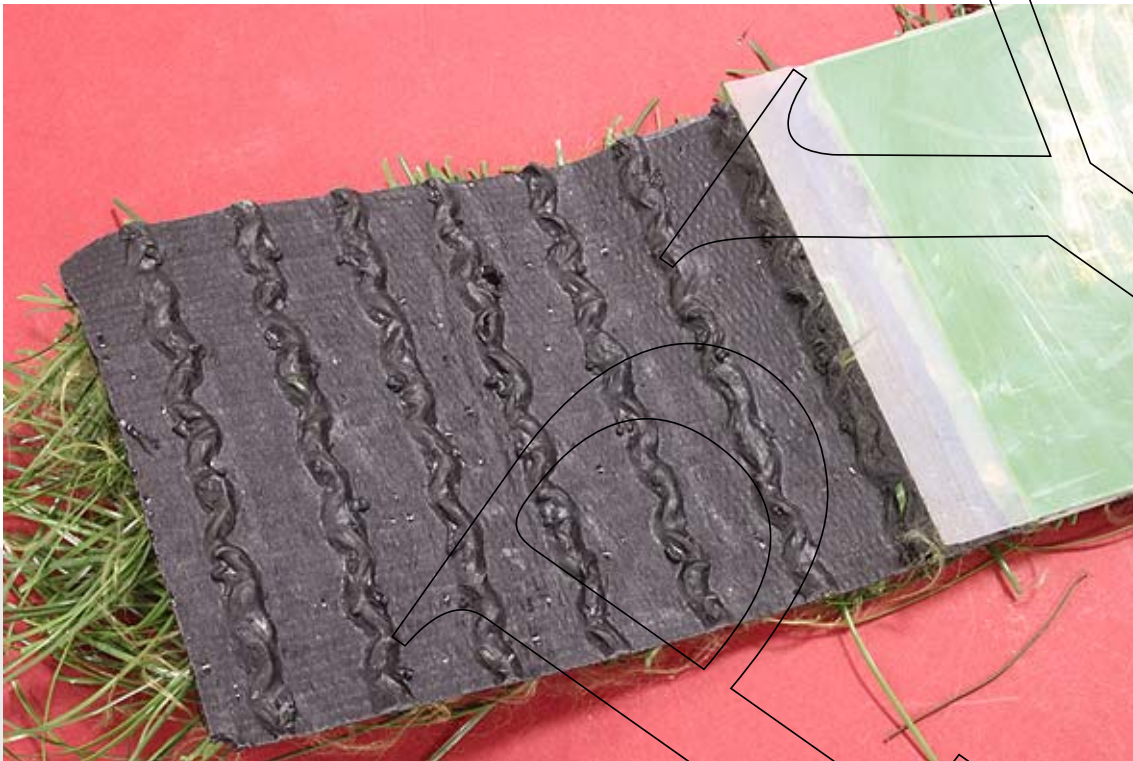
COUNTRY

Italy

DATA ACQUISITION

DATE OF RECEIPT OF ORDER	October 23 rd 2015
DATE OF RECEIPT OF FIRST SAMPLE	November 20 th 2014
DATE OF RECEIPT OF LAST SAMPLE	July 29 th 2015
STARTING DATE OF THE TESTS	November 20 th 2014
ENDING DATE OF THE TESTS	October 23 rd 2015

SAMPLE IDENTIFICATION



FIFA joint

Product name	ADESIVER GREEN TURF
Description (from manufacturer's data sheet)	The joint was realized on an artificial turf with a latex secondary backing, using Chimiver's glue Adesiver Green Turf and a 400mm width tape.

TESTS RESULTS

Joint strength bonded seams (N) EN 12228 Method 2			
Average unaged	261N	Average water aged	222N
Requirements : FIFA $\geq 75\text{N}/100\text{mm}$; EN15330-1:2013 Football $\geq 60\text{N}/100\text{mm}$; World Rugby $\geq 25\text{N}/100\text{mm}$			
Joint strenght bonded seams (N) EN 12228 Method 1			
Average unaged	2181N	Average water aged	2063N
Requirements : Italian Football Federation unaged $\geq 1500\text{N}/100\text{mm}$, water aged $\geq 1350\text{N}/100\text{mm}$			

CHEMICAL TESTS

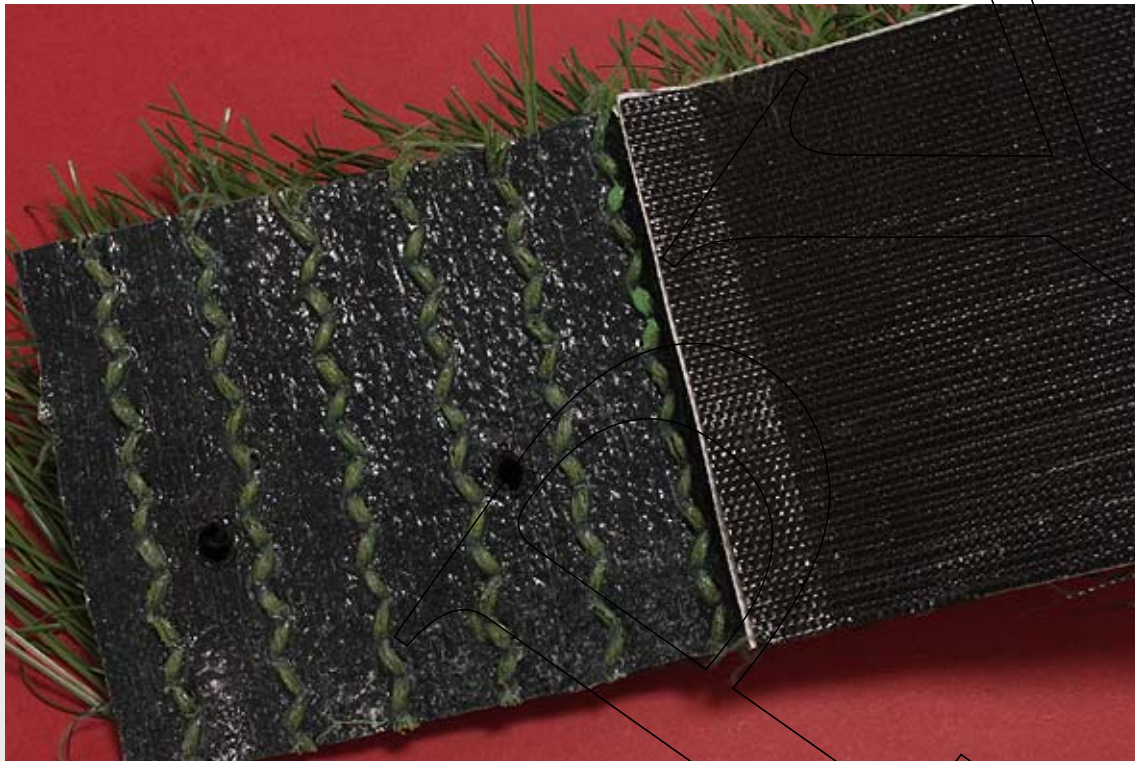
Heavy metals detection (DIN 18035-7 requirements)

Elements	Results	DIN requirements
Lead Pb	<0.001mg/l	≤ 0,040 mg/l
Cadmium (Cd)	<0.001 mg/l	≤ 0,005 mg/l
Chromium Cr total	<0.001 mg/l	≤ 0,050 mg/l
Chromium VI Cr	<0,008 mg/l	≤ 0,008 mg/l
Mercury Hg	<0.0001 mg/l	≤ 0,0010 mg/l
Tin Sn	<0.001 mg/l	≤ 0,050 mg/l
Dissolved Organic Carbon DOC	4.5 mg/l	≤ 40 mg/l
Zinc Zn	0.074 mg/l	≤ 20 mg/l
Result	Pass	

PAH detection

Elements	Results (mg/kg)
Naphtalène	0.005 mg/kg
Acenaphtylène	<0.005 mg/kg
Acenaphtène	<0.005 mg/kg
Fluorène	<0.005 mg/kg
Phenanthrène	0.005 mg/kg
Anthracène	<0.005 mg/kg
Fluoranthène	<0.005 mg/kg
Pyrène	<0.005 mg/kg
Benzo(A) Anthracène	<0.005 mg/kg
Chrysène	<0.005 mg/kg
Benzo(B) Fluoranthène	<0.005 mg/kg
Benzo(K) Fluoranthène	<0.005 mg/kg
Benzo(A) Pyrène	<0.005 mg/kg
Indeno 1,2,3 (CD) Pyrène	<0.005 mg/kg
Dibenzo(A,H) Anthracène	<0.005 mg/kg
Benzo(G,H,I) Perylène	<0.005 mg/kg

SAMPLE IDENTIFICATION



joint

Product name	ADESIVER GREEN
Description (from manufacturer's data sheet)	The joint was realized on an artificial turf with a polyolefin secondary backing, using Chimiver's glue Adesiver Green and a 400mm. width tape.

TESTS RESULTS

Joint strength bonded seams (N) EN 12228 Method 2			
Average unaged	174N	Average water aged	165N
Requirements : FIFA $\geq 75N/100mm$; EN15330-1:2013 Football $\geq 60N/100mm$; World Rugby $\geq 25N/100mm$			
Joint strenght bonded seams (N) EN 12228 Method 1			
Average unaged	2316N	Average water aged	1845N
Requirements : Italian Football Federation unaged $\geq 1500N/100mm$, water aged $\geq 1350N/100mm$			

CHEMICAL TESTS

Heavy metals detection (DIN 18035-7 requirements)

Elements	Results	DIN requirements
Lead Pb	<0.001mg/l	≤ 0,040 mg/l
Cadmium (Cd)	<0.001 mg/l	≤ 0,005 mg/l
Chromium Cr total	<0.001 mg/l	≤ 0,050 mg/l
Chromium VI Cr	<0.008 mg/l	≤ 0,008 mg/l
Mercury Hg	<0.0001 mg/l	≤ 0,0010 mg/l
Tin Sn	<0.001 mg/l	≤ 0,050 mg/l
Dissolved Organic Carbon DOC	2.55 mg/l	≤ 40 mg/l
Zinc Zn	0.156 mg/l	≤ 20 mg/l
Result	Pass	

PAH detection

Elements	Results (mg/kg)
Naphtalène	0.076 mg/kg
Acenaphtylène	<0.005 mg/kg
Acenaphtène	<0.005 mg/kg
Fluorène	0.006 mg/kg
Phenanthrène	<0.005 mg/kg
Anthracène	<0.005 mg/kg
Fluoranthène	<0.005 mg/kg
Pyrène	<0.005 mg/kg
Benzo(A) Anthracène	<0.005 mg/kg
Chrysène	<0.005 mg/kg
Benzo(B) Fluoranthène	<0.005 mg/kg
Benzo(K) Fluoranthène	<0.005 mg/kg
Benzo(A) Pyrène	<0.005 mg/kg
Indeno 1,2,3 (CD) Pyrène	<0.005 mg/kg
Dibenzo(A,H) Anthracène	<0.005 mg/kg
Benzo(G,H,I) Perylène	<0.005 mg/kg

EQUIPMENT USED

UNI EN 12228:2013 Surfaces for sports areas – Determination of joint strength of synthetic surfaces

Equipment	Model	Serial number	Internal code
Cella di carico MTS	5KN	205083	STR150
MTS	Insight	39991	STR165
Datalogger	117-H1	01333640/702	STR018
Climatizzatore	BXN0-A022 E	BX-CT0022AA001H	STR127
PC	Latitude E5500	7567D450	STR099

UNI EN 13744:2005 Surfaces for sports areas. Procedure for accelerated ageing by immersion in hot water

Equipment	Model	Serial number	Internal code
Stufa Binder	BF720	09-10549	STR110

ADDITIONAL INFORMATION

None

CONCLUSIONS

None

Laboratory director
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