SPORTS LABS

TESTING TECHNOLOGY FOR SPORT

LABORATORY ANALYSIS REPORT

Sample Reference **REFOAM**

Report Number **10387/7775**

Report Status **Final**

Issue Date **26/06/2020**

Client **APE TEK Srl**
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FOREWORD

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5. Comments and opinions are out with the scope of our ISO 17025 accreditation

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REGIONAL LOCATIONS
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- Turkey
- South Africa
- Netherlands
- Belgium
- Norway
- Israel

1.0 INTRODUCTION

This report details the test results from the shockpad samples submitted to our Laboratory for analysis according to the following methods:

REQUESTED TEST METHODS

- *(1) Migration of Certain Elements EN71 Part 3:2013+A1:2014
- *(1) Phthalates Content with reference to REACH Annex XVII, Entry 51 & 52
- *(1) PAH Content with reference to REACH Annex XVII, PAH, Entry 50
- *(2) DIN 18035-7:2014 Chemical Analysis

*Not all tests carried out are within our scope of ISO 17025 Accreditation.
(1) Carried out by sub-contracted specialist laboratory under their report number 20061102.
(2) Carried out by sub-contracted specialist laboratory under their report number L 143 0620-1.

2.0 SAMPLE REFERENCE

Test Components

Component No.	Description
1	White Foam
2	Black Foam
3	Blue Foam
4	Red Foam
5	Yellow/Orange Foam
6	Black (EVA Type)

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26/06/2020

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26/06/2020

EN71 Part 3: 2013 +A1:2014 migration of certain elements from toys and toys materials *

Analysis was conducted by ICP--OES.

Clause	Application	Results	Category
7.3.3.2	Polymers etc	**Pass**	**III**

Chromium (VI) & Organic Tin

Requirements	First Screening Action	Category
Chromium (VI)	**Pass**	**III**
Organic Tin	**Pass**	**III**

Element	Symbol	Category III Limits	Component						Pass/Fail
			1	2	3	4	5	6	
Aluminium	Al	70,000	<30	<30	<30	<30	<30	<30	**Pass**
Antimony	Sb	560	69	20	<7	<7	<7	<7	**Pass**
Arsenic	As	47	<5	<5	<5	<5	<5	<5	**Pass**
Barium	Ba	18,750	<30	<30	<30	<30	<30	<30	**Pass**
Boron	B	15,000	<30	<30	<30	<30	<30	<30	**Pass**
Cadmium	Cd	17	<2	<2	<2	<2	<2	<2	**Pass**
Chromium (III)	Cr	460	<1	<1	<1	<1	<1	<1	**Pass**
Cobalt	Co	130	<10	<10	<10	<10	<10	<10	**Pass**
Copper	Cu	7,700	<10	<10	<10	<10	<10	<10	**Pass**
Lead	Pb	160	<9	<9	<9	<9	<9	<9	**Pass**
Manganese	Mn	15,000	<10	<10	<10	<10	<10	<10	**Pass**
Mercury	Hg	94	<7	<7	<7	<7	<7	<7	**Pass**
Nickel	Ni	930	<10	<10	<10	<10	<10	<10	**Pass**
Selenium	Se	460	<7	<7	<7	<7	<7	<7	**Pass**
Strontium	Sr	56,000	<30	<30	<30	<30	<30	<30	**Pass**
Tin	Sn	180,000	<8	<8	<8	<8	<8	<8	**Pass**
Zinc	Zn	46,000	<30	<30	<30	<30	56	<30	**Pass**
Chromium (VI)	Cr	0.2	**Pass**						
Organic Tin	Sn	12	**Pass**						
(Chromium as total soluble, chromium (III) limit reporting limit, <= less than) All results are expressed in mg/kg									

REACH Regulations EC1907/2006 (Annex XVII Restricted phthalates, substances 51 and 52 in toys and child care articles) *

Test Parameter		Entry	Result	Pass/Fail
Butyl benzyl phthalate	BBP	Entry 51	< 225	Pass
Di-butyl phthalate	DBP		< 225	
Di (2-ethylhexyl) phthalate)	DEHP		< 225	
Di-isononyl phthalate	DINP	Entry 52	< 225	Pass
Di-iso-decyl phthalate	DIDP		< 225	
Di-n-octyl phthalate	DODP		< 225	
Results (in mg/kg; < = less than, > = greater than)				
Restricted phthalates—all toys and childcare articles which can be placed in the mouth by children. Fail if summed concentration of Entry 51 and Entry 52 is greater than 0.1% mass (1000mg/kg)				

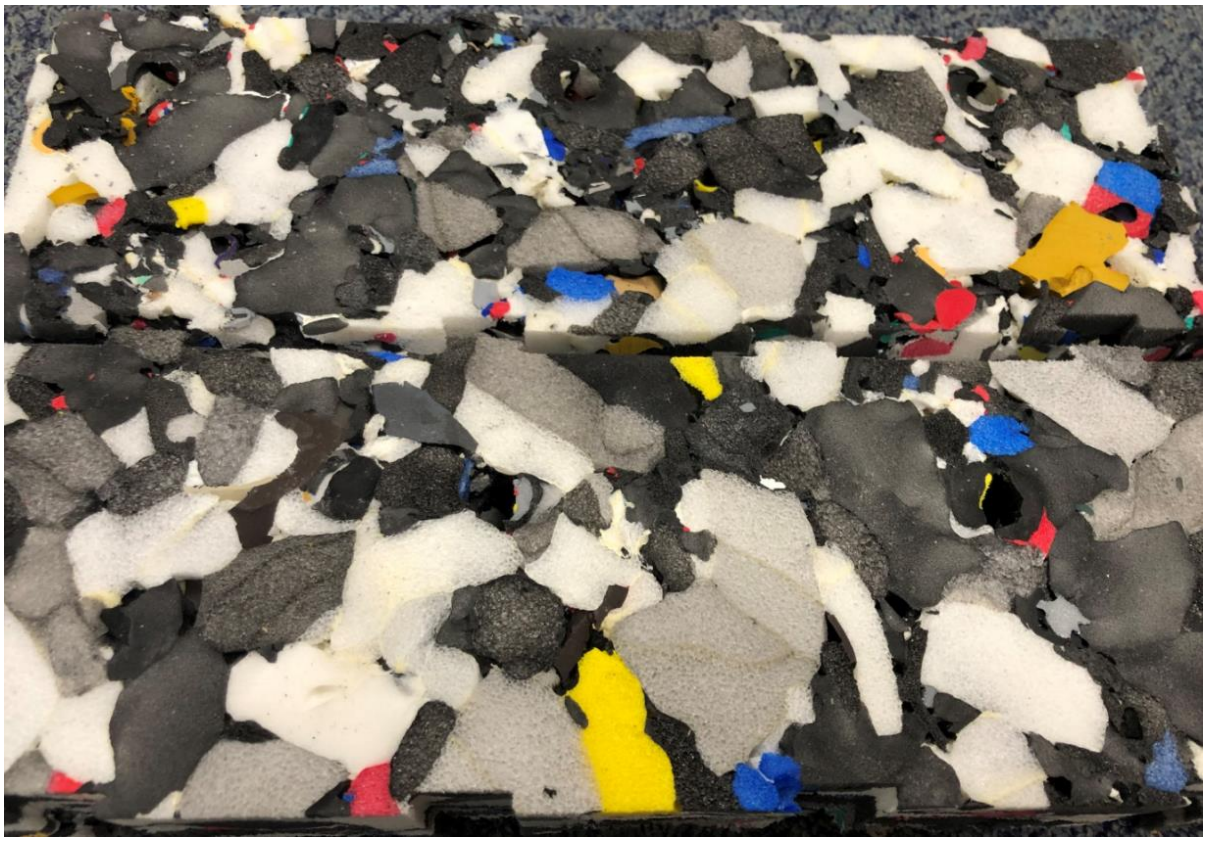
REACH Regulations EC1907/2006 (Annex XVII, PAH) *

Test Parameter	Entry	Requirement	Result	Pass/Fail
Benzo (a) pyrene	Entry 50	No requirement for individual PAHs for sports field infill material	< 0.1	Pass
Benzo (e) pyrene			< 0.1	
Benzo (a) anthracene			< 0.1	
Chrysene			< 0.1	
Benzo (b) fluoranthene			< 0.1	
Benzo (j) fluoranthene			< 0.1	
Benzo (k) fluoranthene			< 0.1	
Dibenzo (a, h) anthracene			< 0.1	
Sum of all components		**< 20 mg/kg**	< 0.8	
Results (in mg/kg; < = less than, > = greater than)				
Fail if the sum of all listed PAHs is more than 20 mg/kg				

DIN 18035-7:2014 HEAVY METAL ANALYSIS *(1)

Test Parameter	Test Method	DIN18035-7 Specification Requirement	Result	Pass/Fail
Dry Matter	DIN ISO 11465*	-	99.6	-
EOX	DIN 38414-S17*	≤ 100 mg/kg	8.14	**Pass**
Ph-Wert	DIN EN ISO 10523-C5	≤100 mg/kg	7.38	**Pass**
DOC (24hr)	BS EN 1484*	≤ 50 mg/l	18.4	**Pass**
Lead	BS EN ISO 11885*	≤ 0.025 mg/l	< QL	**Pass**
Cadmium	BS EN ISO 11885*	≤ 0.005 mg/l	< QL	**Pass**
Chromium	BS EN ISO 11885*	≤ 0.05 mg/l	< QL	**Pass**
Chromium VI	DIN 38405-D24*	≤ 0.008 mg/l	< QL	**Pass**
Mercury	ICP-OES*	≤ 0.001 mg/l	< QL	**Pass**
Tin	BS EN ISO 11885*	≤ 0.04 mg/l	< QL	**Pass**
Zinc	BS EN ISO 11885*	≤ 0.5 mg/l	0.0808	**Pass**

< QL Result below quantification limit (ie. below measuring capabilities of test apparatus)
*Not all tests carried out are within our scope of ISO 17025 Accreditation.

Sample Image


End of Report