

Test Report

Customer: Staroplastic s.r.o.
Videnska 125a
64900 Brna
Czech Republic

BV Order No.: 58317
Report No.: (25423)073-541880
Report Version: 1

Contact Person: Mrs. Jelena Jagnijc

Report Date: 14.03.2023

Sample Information

Testing Requirements: Tested according to "ordered" requirements

Sample Description: HDPE-plates

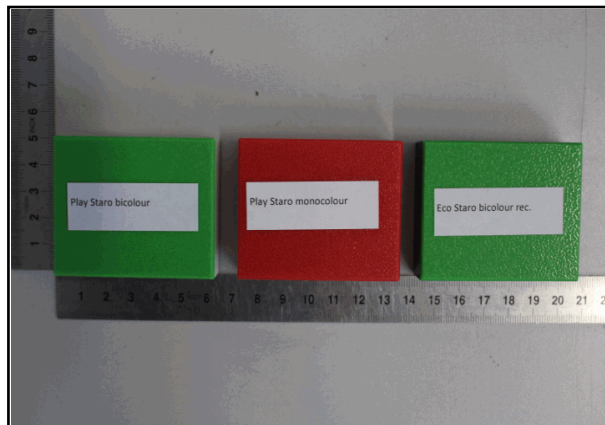
Sample Reception: 02.03.2023

Performance Date: 02.03.2023 - 14.03.2023

Sampled By: client

Submitted Samples

No. 1



Summary of Test Results

Tested according to "ordered" requirements

Tests required	Evaluation	Remark
Lead, Cadmium, Mercury - total content	Pass	
Phthalates (SVHC REACH Annex XIV & XVII)	Pass	



**BUREAU
VERITAS**



Deutsche
Akkreditierungsstelle
D-PL-12024-02-01

Tested Samples

Article No	Sample ID	Sample description
	541880-01	HDPE-plates: 1) Play Staro Monocolour, 2) Play Staro Bicolour, 3) Eco Staro Bicolour recycled inner black core (3 mixed components)

Test Results

Tested according to "ordered" requirements

Sample Description:		Lab Reference No:	
HDPE-plates: 1) Play Staro Monocolour, 2) Play Staro Bicolour, 3) Eco Staro Bicolour recycled inner black core (3 mixed components)		541880-01	
Test Method / Standard:		Phthalates (SVHC REACH Annex XIV & XVII): DIN EN ISO 14389:2023-01 (modified), extraction with THF/ACN, GC-MS and/or LC-MS analysis, reporting limit: 50 mg/kg / 0.005 %	
Test Location:		Parameter has been analyzed at accredited BVCPs laboratory Schwerin.	
Parameter	Limit	Result	Evaluation
Benzylbutylphthalate (BBP)	≤ 0.1 %	<0.005 %	Pass
Dibutylphthalate (DBP)	≤ 0.1 %	<0.005 %	Pass
Di(2-ethylhexyl)phthalate (DEHP)	≤ 0.1 %	<0.005 %	Pass
Di-iso-butylphthalate (DIBP)	≤ 0.1 %	<0.005 %	Pass
Entry 51 - Combination of DEHP, DBP, BBP, DIBP	≤ 0.1 %	<0.005 %	Pass
Entry 52 - Di-iso-nonylphthalate (DINP)	≤ 0.1 %	<0.005 %	Pass
Entry 52 - Di-iso-decylphthalate (DIDP)	≤ 0.1 %	<0.005 %	Pass
Entry 52 - Di-n-octylphthalate (DNOP)	≤ 0.1 %	<0.005 %	Pass
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	≤ 0.1 %	<0.005 %	Pass
1,2-Benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP) -> determined as Diundecylphthalate	≤ 0.1 %	<0.005 %	Pass
Bis(2-methoxyethyl) phthalate (DMEP)	≤ 0.1 %	<0.005 %	Pass
Di-n-pentylphthalate (DPENP)	≤ 0.1 %	<0.005 %	Pass
Di-iso-pentylphthalate (DiPP)	≤ 0.1 %	<0.005 %	Pass
n-Pentyl-iso-pentylphthalate (PiPP)	≤ 0.1 %	<0.005 %	Pass
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP)	≤ 0.1 %	<0.005 %	Pass
Di-n-hexyl phthalate (DnHP)	≤ 0.1 %	<0.005 %	Pass
Dicyclohexylphthalate (DCHP)	≤ 0.1 %	<0.005 %	Pass
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (DHxP)	≤ 0.1 %	<0.005 %	Pass
Di-iso-hexylphthalate (DIHxP)	≤ 0.1 %	<0.005 %	Pass
1,2-Benzenedicarboxylic acid, di-C6-10 alkyl esters; 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl di esters with ≥0.3% of dihexylphthalate (EC 201-559-5)	≤ 0.1 %	<0.005 %	Pass
Test Method / Standard:		Lead, Cadmium, Mercury - total content: DIN EN 13346 (modified), DIN EN ISO 17294-2, reporting limit: 1 mg/kg	
Test Location:		Parameter has been analyzed at accredited BVCPs laboratory Schwerin.	
Parameter	Limit	Result	Evaluation
Cadmium (Cd)	≤ 75 mg/kg	<1 mg/kg	Pass
Lead (Pb)	≤ 100 mg/kg	<1 mg/kg	Pass
Mercury (Hg)	≤ 100 mg/kg	<1 mg/kg	Pass

Bureau Veritas
Consumer Products Services Germany GmbH
www.bureauveritas.de/cps
Phone: +49 (0)40 - 740 41 - 0

Managing Director: Sebastian Doose, Stefan Kischka
Reg.No. Schwerin HRB 3564

Schwerin
Wilhelm-Hennemann-Str. 8, 19061 Schwerin
cps-schwerin@bureauveritas.com

Hamburg
Ochleckerweg 40, 22419 Hamburg
cps-hamburg@bureauveritas.com

Türkheim
Businesspark A96, 86842 Türkheim
cps-tuerkheim@bureauveritas.com

Nuremberg
Thurn-und-Taxis-Str. 18, 90411 Nuremberg
cps-nuernberg@bureauveritas.com



BUREAU
VERITAS



Deutsche
Akkreditierungsstelle
D-PL-12024-02-01

Sample Description:	HDPE-plates: 1) Play Staro Monocolour, 2) Play Staro Bicolour, 3) Eco Staro Bicolour recycled inner black core (3 mixed components)	Lab Reference No:	541880-01
----------------------------	---	--------------------------	-----------

The test results relate only to the received and tested item. Without the written consent of Bureau Veritas Consumer Products Services Germany GmbH excerpts of this report shall not be reproduced. If the standard or the customer defines no decision rule, the laboratory applies a decision rule following the "Binary Statement for Simple Acceptance Rule (w=0)" (chapter 4.2.1) of ILAC Guidelines on Decision Rules and Statements of Conformity (ILAC-G8:09/2019). The results in this test report are reported in a simplified way (et al. without measurement uncertainty).

The testing of mixed samples is carried out at the customer's explicit request and may imply a deviation from the testing standard. Please note the following: results for mixed samples that are below the limit may exceed the limit if the samples contained in the mixed sample are tested individually. In these cases separate testing of the samples is recommended.

Dr. Christian Dobbe
Lab Supervisor Sample Preparation

No results printed beyond this point in the report

Detailed Method Descriptions

Analysis / Test:	Lead, Cadmium, Mercury - total content
Total microwave digestion according to DIN EN 13346 (modified), ICP-MS analysis according to DIN EN ISO 17294-2, reporting limit: 1 mg/kg	

Parameters & CAS No.

Lead, Cadmium, Mercury - total content	(CAS No.)
Lead (Pb) (7439-92-1)	
Mercury (Hg) (7439-97-6)	
Cadmium (Cd) (7440-43-9)	

Phthalates (SVHC REACH Annex XIV & XVII)	(CAS No.)
Di(2-ethylhexyl)phthalate (DEHP) (117-81-7)	
Bis(2-methoxyethyl) phthalate (DMEP) (117-82-8)	
Entry 52 - Di-n-octylphthalate (DNOP) (117-84-0)	
Di-n-pentylphthalate (DPENP) (131-18-0)	
Entry 52 - Di-iso-decylphthalate (DIDP) (26761-40-0)	
Entry 52 - Di-iso-nonylphthalate (DINP) (28553-12-0)	
Di-iso-pentylphthalate (DiPP) (605-50-5)	
1,2-Benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP) -> determined as Diundecylphthalate (68515-42-4, 3648-20-2)	
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (DHxP) (68515-50-4)	

1,2-Benzenedicarboxylic acid, di-C6-10 alkyl esters; 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl di esters with ≥0.3% of dihexylphthalate (EC 201-559-5) (68648-93-1, 68515-51-5)
Di-iso-hexylphthalate (DIHxP) (71850-09-4)
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) (71888-89-6)
n-Pentyl-iso-pentylphthalate (PiPP) (776297-69-9)
Dicyclohexylphthalate (DCHP) (84-61-7)
Di-iso-butylphthalate (DIBP) (84-69-5)
Dibutylphthalate (DBP) (84-74-2)
Di-n-hexyl phthalate (DnHP) (84-75-3)
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP) (84777-06-0)
Benzylbutylphthalate (BBP) (85-68-7)

Bureau Veritas
Consumer Products Services Germany GmbH
www.bureauveritas.de/cps
Phone: +49 (0)40 - 740 41 - 0

Managing Director: Sebastian Doose, Stefan Kischka
Reg.No. Schwerin HRB 3564

Schwerin
Wilhelm-Hennemann-Str. 8, 19061 Schwerin
cps-schwerin@bureauveritas.com

Hamburg
Ochleckerweg 40, 22419 Hamburg
cps-hamburg@bureauveritas.com

Türkheim
Businesspark A96, 86842 Türkheim
cps-tuerkheim@bureauveritas.com

Nuremberg
Thurn-und-Taxis-Str. 18, 90411 Nuremberg
cps-nuernberg@bureauveritas.com