Intertek Consumer Goods GmbH · Würzburger Straße 152 · 90766 Fürth · Germany

Fürth, 2018-12-11

Test report No. FUHLCP2018-08955

Testing according to the RoHS directive 2011/65/EC

Sample description: **Creek Base**

Arrival in lab: 2018-11-02; Period of XRF analysis incl. sample preparation and photo documentation: 2018-11-19 – 2018-11-19
Period of analysis for the verification tests: 2018-11-20 – 2018-11-26
Head of Inorganic Lab: Claudia List

This report consists of 4 page(s).
The test methods signed with * are not listed in the attachment of the accreditation certificate.

Conclusion based on tested item

Test order	Status
testing according to the RoHS directive 2011/65/EC	**pass °**

° Please see overview of the test results.

- Test results see next pages -

Sample description: **Creek Base**

nM = non Metal
M = Metal
cM = composite Material

List of component parts:

Method: Disassembly, disjointment and mechanical sample preparation according to DIN EN 62321-2:2014-09

Sample No.	Part No.	Material	Description
824645	**1**	M	Creek Base – Material SS316

Images:

Sample No. 824645
Part No. 1

Sample No. 824645
Part No. 1

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USt-IdNr. DE169317871

Geschäftsführer
Thomas Kordick

Sample description: **Creek Base**

Comment

LOD = Limit of Detection

BL = Below Limit
OL = Over Limit
X = Inconclusive, further test necessary
σ = Standard deviation

CS = Composite sample

Remark:

Results were obtained by EDXRF for primary screening. Additional chemical testing using ICP (for Cd, Pb), AAS (for Hg), IC-UC/VIS (for CrVI) and GC/MS (for PBBs/PBDEs) are recommended, if the concentration exceeds the below warning value according to DIN EN 62321-3-1:2014-10.

Element	Unit	non - metal	metal
Cd	mg / kg	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL
Pb	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Hg	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Br	mg / kg	BL ≤ (300-3σ) < X	--
Cr	mg / kg	BL ≤ (700-3σ) < X	BL ≤ (700-3σ) < X

Element	Unit	composite material
Cd	mg / kg	LOD < X < (150+3σ) ≤ OL
Pb	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Hg	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Br	mg / kg	BL ≤ (250-3σ) < X
Cr	mg / kg	BL ≤ (500-3σ) < X

Sample description: **Creek Base**

1. XRF screening

Method: XRF according to DIN EN 62321-3-1:2014-10*

Sample No.	Part No.	Pb	Hg	Cd	Cr_{total}	Br	Status
824645	**1**	BL	BL	BL	**X[1)]**	--	please see additional test

2. Chromium VI in µg/cm²

Method: Metals: boiling water Extraction accord. to DIN EN 62321-7-1:2016-09 mod. / IC-detection

Detection limit: < 0.10µg/cm² (negative) / ≥ 0.10 to 0.13 (inconclusive) / ≥ 0.13 µg/cm² (positive)

Sample No.	Part No.	Cr VI µg/cm²	Presence of Cr VI	Status
824645	**1**	< 0.10	negative	pass

Comment:

Elements	RoHS-limit value
Lead (Pb)	1000 mg/kg
Mercury (Hg)	1000 mg/kg
Cadmium (Cd)	100 mg/kg
Chromium VI (Cr VI)	1000 mg/kg
Polybrominated Biphenyle (PBBs)	1000 mg/kg
Polybrominated Diphenyl ether (PBDEs)	1000 mg/kg
Phthalates (effective 2019)	*1000 mg/kg*

Index:

(1) Chromium VI should be additionally analyzed by IC / UV-VIS and/or Spot test.

Intertek Consumer Goods GmbH

Prüfleitung / Lab Manager

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Intertek Consumer Goods GmbH · Würzburger Straße 152 · 90766 Fürth · Germany

Fürth, 2018-12-11

Test report No. FUHLCP2018-08956

Testing according to the RoHS directive 2011/65/EC

Sample description: **Creek Positive Post Insulator**

Arrival in lab: 2018-11-02; Period of XRF analysis incl. sample preparation and photo documentation: 2018-11-19 – 2018-11-19
Head of Inorganic Lab: Claudia List

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Conclusion based on tested item

Test order	Status
testing according to the RoHS directive 2011/65/EC	**pass °**

° Please see overview of the test results.

- Test results see next pages -

Sample description: **Creek Positive Post Insulator**

nM = non Metal
M = Metal
cM = composite Material

List of component parts:

Method: Disassembly, disjointment and mechanical sample preparation according to DIN EN 62321-2:2014-09

Sample No.	Part No.	Material	Description
824646	**1**	nM	Creek Positive Post Insulator – Material PEEK

Images:

Sample No. 824646
Part No. 1

Sample No. 824646
Part No. 1

Sample description: **Creek Positive Post Insulator**

Comment

LOD = Limit of Detection

BL = Below Limit
OL = Over Limit
X = Inconclusive, further test necessary
σ = Standard deviation

CS = Composite sample

Remark:

Results were obtained by EDXRF for primary screening. Additional chemical testing using ICP (for Cd, Pb), AAS (for Hg), IC-UC/VIS (for CrVI) and GC/MS (for PBBs/PBDEs) are recommended, if the concentration exceeds the below warning value according to DIN EN 62321-3-1:2014-10.

Element	Unit	non - metal	metal
Cd	mg / kg	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL
Pb	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Hg	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Br	mg / kg	BL ≤ (300-3σ) < X	--
Cr	mg / kg	BL ≤ (700-3σ) < X	BL ≤ (700-3σ) < X

Element	Unit	composite material
Cd	mg / kg	LOD < X < (150+3σ) ≤ OL
Pb	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Hg	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Br	mg / kg	BL ≤ (250-3σ) < X
Cr	mg / kg	BL ≤ (500-3σ) < X

Sample description: **Creek Positive Post Insulator**

1. XRF screening

Method: XRF according to DIN EN 62321-3-1:2014-10*

Sample No.	Part No.	Pb	Hg	Cd	Cr_{total}	Br	Status
824646	**1**	BL	BL	BL	BL	BL	pass

Comment:

Elements	RoHS-limit value
Lead (Pb)	1000 mg/kg
Mercury (Hg)	1000 mg/kg
Cadmium (Cd)	100 mg/kg
Chromium VI (Cr VI)	1000 mg/kg
Polybrominated Biphenyle (PBBs)	1000 mg/kg
Polybrominated Diphenyl ether (PBDEs)	1000 mg/kg
Phthalates (effective 2019)	*1000 mg/kg*

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Fürth, 2018-12-11

Test report No. FUHLCP2018-08957

Testing according to the RoHS directive 2011/65/EC

Sample description: **Creek Top Cap**

Arrival in lab: 2018-11-02; Period of XRF analysis incl. sample preparation and photo documentation: 2018-11-19 – 2018-11-19
Head of Inorganic Lab: Claudia List

This report consists of 4 page(s).
The test methods signed with * are not listed in the attachment of the accreditation certificate.

Conclusion based on tested item

Test order	Status
testing according to the RoHS directive 2011/65/EC	**pass °**

° Please see overview of the test results.

- Test results see next pages -

Sample description: **Creek Top Cap**

nM = non Metal
M = Metal
cM = composite Material

List of component parts:

Method: Disassembly, disjointment and mechanical sample preparation according to DIN EN 62321-2:2014-09

Sample No.	Part No.	Material	Description
824647	**1**	nM	Creek Top Cap – Material Ultem

Images:

Sample No. 824647
Part No. 1

Sample No. 824647
Part No. 1

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Sample description: **Creek Top Cap**

Comment

LOD = Limit of Detection

BL = Below Limit
OL = Over Limit
X = Inconclusive, further test necessary
σ = Standard deviation

CS = Composite sample

Remark:

Results were obtained by EDXRF for primary screening. Additional chemical testing using ICP (for Cd, Pb), AAS (for Hg), IC-UC/VIS (for CrVI) and GC/MS (for PBBs/PBDEs) are recommended, if the concentration exceeds the below warning value according to DIN EN 62321-3-1:2014-10.

Element	Unit	non - metal	metal
Cd	mg / kg	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL
Pb	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Hg	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Br	mg / kg	BL ≤ (300-3σ) < X	--
Cr	mg / kg	BL ≤ (700-3σ) < X	BL ≤ (700-3σ) < X

Element	Unit	composite material
Cd	mg / kg	LOD < X < (150+3σ) ≤ OL
Pb	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Hg	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Br	mg / kg	BL ≤ (250-3σ) < X
Cr	mg / kg	BL ≤ (500-3σ) < X

Sample description: **Creek Top Cap**

1. XRF screening

Method: XRF according to DIN EN 62321-3-1:2014-10*

Sample No.	Part No.	Pb	Hg	Cd	Cr_{total}	Br	Status
824647	1	BL	BL	BL	BL	BL	pass

Comment:

Elements	RoHS-limit value
Lead (Pb)	1000 mg/kg
Mercury (Hg)	1000 mg/kg
Cadmium (Cd)	100 mg/kg
Chromium VI (Cr VI)	1000 mg/kg
Polybrominated Biphenyle (PBBs)	1000 mg/kg
Polybrominated Diphenyl ether (PBDEs)	1000 mg/kg
Phthalates (effective 2019)	*1000 mg/kg*

Intertek Consumer Goods GmbH

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Fürth, 2018-12-11

Test report No. FUHLCP2018-08958

Testing according to the RoHS directive 2011/65/EC

Sample description: **Creek Drip Tip A**

Arrival in lab: 2018-11-02; Period of XRF analysis incl. sample preparation and photo documentation: 2018-11-19 – 2018-11-19
Head of Inorganic Lab: Claudia List

This report consists of 4 page(s).
The test methods signed with * are not listed in the attachment of the accreditation certificate.

Conclusion based on tested item

Test order	Status
testing according to the RoHS directive 2011/65/EC including Directive (EU) 2015/863	**pass °**

° Please see overview of the test results.

- Test results see next pages -

Sample description: **Creek Drip Tip A**

nM = non Metal
M = Metal
cM = composite Material

List of component parts:

Method: Disassembly, disjointment and mechanical sample preparation according to DIN EN 62321-2:2014-09

Sample No.	Part No.	Material	Description
824648	**1**	nM	Creek Drip Tip A – Material Acetal

Images:

Sample No. 824648
Part No. 1

Sample No. 824648
Part No. 1

Sample description: **Creek Drip Tip A**

Comment

LOD = Limit of Detection

BL = Below Limit
OL = Over Limit
X = Inconclusive, further test necessary
σ = Standard deviation

CS = Composite sample

Remark:

Results were obtained by EDXRF for primary screening. Additional chemical testing using ICP (for Cd, Pb), AAS (for Hg), IC-UC/VIS (for CrVI) and GC/MS (for PBBs/PBDEs) are recommended, if the concentration exceeds the below warning value according to DIN EN 62321-3-1:2014-10.

Element	Unit	non - metal	metal
Cd	mg / kg	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL
Pb	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Hg	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Br	mg / kg	BL ≤ (300-3σ) < X	--
Cr	mg / kg	BL ≤ (700-3σ) < X	BL ≤ (700-3σ) < X

Element	Unit	composite material
Cd	mg / kg	LOD < X < (150+3σ) ≤ OL
Pb	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Hg	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Br	mg / kg	BL ≤ (250-3σ) < X
Cr	mg / kg	BL ≤ (500-3σ) < X

Sample description: **Creek Drip Tip A**

1. XRF screening

Method: XRF according to DIN EN 62321-3-1:2014-10*

Sample No.	Part No.	Pb	Hg	Cd	Cr_{total}	Br	Status
824648	**1**	BL	BL	BL	BL	BL	pass

Comment:

Elements	RoHS-limit value
Lead (Pb)	1000 mg/kg
Mercury (Hg)	1000 mg/kg
Cadmium (Cd)	100 mg/kg
Chromium VI (Cr VI)	1000 mg/kg
Polybrominated Biphenyle (PBBs)	1000 mg/kg
Polybrominated Diphenyl ether (PBDEs)	1000 mg/kg
Phthalates (effective 2019)	*1000 mg/kg*

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