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Out of the blue (Hong Kong) Ltd.
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Report No.: 01359-1 DGN21
Date: 09.02.21
Order No.: DGN-01048-21
Date of order: 01.02.21
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Test Report

Order description:

Material test

Article Name	MINI BOULE SET
Article No.	79/5995
Other article no.	PO 30705
Supplier code	Buyer:"OUT OF THE BLUE KG"
Condition of sample at delivery	no defects
Arrival date	01.02.21
Test start date	01.02.21
Test end date	09.02.21



Limit lists

Chem.	Customer test requirements
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Final conclusion: PASS

Test results and evaluation are only related to tested items and to performed methods. Detailed information regarding measurement uncertainties are available on request. Unless otherwise stated, the statement of conformity decision will be made without taking the measurement uncertainty into account.

Goff Long

Goff Long
Lab Manager

Summary

21-003317-01 - MINI BOULE SET

ALL TEST RESULTS COMPLY WITH THE REQUIREMENTS ACCORDING TO THE SCOPE OF ANALYSIS.

Overview of Chem. testing

Sample no	Type / Style
21-003317-01	PO 30705

Component list	
No	Components
01	Ball silver metal

Customer requirements evaluation				
	Components			
	Tested	Result	Failed	Not tested
Metals, total content	01	PASS		
Nickel (wear simulation)	01	see details		
Nickel release	01	PASS		

Legend: Chem.: chemical tests, Phys.: physical tests, m.s.: composite sample, n.d.: not determined, n.a.: not applicable, n.t.: not tested, i.m.: insufficient material, sum: see summary, s.c.: see component, pos: positive, neg: negative, min: minimum limit, max: maximum limit, BL: below limit, IN: inconclusive

Detailed results of Chem. testing

Sample no: 21-003317-01

Metals, total content

Sample type: Chem.

Norm: DIN EN 16711-1, DIN EN ISO 17294-2, DIN EN 14602, EPA 3015A

Issue date: 2016-02/ 2017-01/2010-10/2007-02

			01
Parameter	Unit	Limit	Result
Cadmium (Cd):total content	mg/kg	100	<10
Lead (Pb): total content	mg/kg	500	23.9
Evaluation			PASS

Nickel (wear simulation)

Sample type: Chem.

Norm: EN/ DIN EN 12472:2018

Issue date: 2018-12

			01
Parameter	Unit	Limit	Result
Nickel (wear simulation)	Y/N		y
Evaluation			-

Nickel release

Sample type: Chem.

Norm: EN/ DIN EN 1811

Issue date: 2015-10

			01
Parameter	Unit	Limit	Result
Nickel: release	$\mu\text{g}/(\text{cm}^2 \cdot \text{week})$	0.5	0.10
volume of artificial perspiration solution - nickel release	ml		34.0
area of nickel release	cm^2		33.58
Evaluation			PASS

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The tested item was selected by the client. Remaining test material is disposed after 3 months. The report must not be reproduced except in full content without the written approval of the testing laboratory. The report is signed digitally and password protected. For printing use the print option -document and comments-. The amount of minor components may be insufficient to perform the announced tests. In this case the test report will carry the mark: component insufficient for lab test. If testing of all components is required we need a sufficient amount of all minor components.

Metals, total content

Test method: DIN EN 16711-1, DIN EN ISO 17294-2, DIN EN 14602, EPA 3015A

standardized method

The total metal content is determined after acid digestion. Analysis is performed with ICP-OES.

Nickel (wear simulation)

Test method: EN/ DIN EN 12472:2018

standardized method

The test item is treated with a grinding material (nutshells and polishing paste) for 5 h and is dried afterwards. Then test the items for Nickel release in accordance with EN 1811.

Nickel release

Test method: EN/ DIN EN 1811

standardized method

Extraction at 30+/-2°C in artificial sweat test solution for 1 week, detection by ICP-MS or AAS.