



EXECUTIVE AGENCY
BULGARIAN ACCREDITATION SERVICE

BAS reg. № 119 ЛИ

From: 12.10.2023

Valid until: 12.10.2027

CERTIFICATE OF ACCREDITATION

PRINTING WORKS OF THE BULGARIAN NATIONAL BANK JSC

TECHNICAL QUALITY CONTROL SECTOR

Management and laboratory address:
1784 Sofia, 117 Tsarigradsko Shosse Blvd.

UIC: 130800278

Scope of accreditation

To perform testing of:

Paper. Inks. Finished Products. (printed securities and documents)

To perform sampling of:

Paper. Inks.

ACCREDITED ACCORDING TO БДС EN ISO/IEC 17025:2018

Order № A 437/12.10.2023 is an integral part of the certificate of accreditation, total 4 pages.

Date of initial accreditation: 30.09.2019

Date of re-accreditation: 12.10.2023

Executive Director

Eng. Irina Borislavova



EA BAS

BG 2023228

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ORDER

№ A 437

Sofia, 12.10.2023

Pursuant to Art. 10, para. 1, item 4, Art. 28, para. 1 of the Law on National Accreditation of Conformity Assessment Bodies, items 6 of the BAS QR 2 Accreditation Procedure of 01.01.2021, in connection with an open procedure reg. № 466/119 ЛИ/ПА/24.02.2023, assessment report reg. № 466/119 ЛИ/ПА/4/В/07.06.2023, annex G2 Section reg. № 466/119 ЛИ/ПА/10/В/28.08.2023 and statement of the Accreditation Commission reg. № 466/119 ЛИ/ПА/12/В/06.10.2023, I hereby

RE-ACCREDIT

**Printing works of the Bulgarian National Bank JSC
Technical Quality Control Sector**

Management and laboratory address:
1784 Sofia, 117 Tsarigradsko Shosse Blvd.

To perform testing of:

Type of the scope: flexible for a part of the scope

№	Tested Products	Type of Test/Characteristic	Testing methods (standard / validated method)
1	2	3	4
1.1	Paper	Grammage, [g/m ²]	ISO 536
1.2	Paper	Thickness, [µm]	ISO 534
1.3	Paper	Dimension [mm] and dimensional tolerancing, [mm]	ISO 14405-1
1.4	Paper	Tensile strength, [N]	ISO 1924-2
1.5	Paper	Tensile extension, [mm]	ISO 1924-2
1.6	Paper	Breaking length, [m]	ISO 1924-2
1.7	Paper	Tensile strength after immersion in water, [N]	ISO 3781
1.8	Paper	Wet Tensile extension, [mm]	ISO 3781
1.9	Paper	Wet strength retention, [%]	ISO 3781
1.10	Paper	Folding endurance (Schopper – Falzer)[log]	ISO 5626
1.11	Paper	Tearing resistance (Elmendorf), [mN],	ISO 1974
1.12	Paper	Moisture content. Over-drying method [%]	ISO 287
1.13	Paper	Ash content, residue, [%]	ISO 1762
1.14	Paper	Roughness Bendtsen, [ml/min]	ISO 8791-2
1.15	Paper	Air permeance Bendtsen (Porosity), [ml/min]	ISO 5636-3
1.16	Paper	Water absorption (Cobb method), [g/m ²]	ISO 535
1.17	Paper	pH of aqueous extracts	ISO 6588-1 ISO 6588-2
1.18	Paper	Opacity, Illuminant C, UV adjusted. C/2 ⁰ [%]	ISO 2471
1.19	Paper	Color, CIEL*a*b* system, Illuminant D65/10 ⁰ , UV adjusted/excluded Color distance [L*a*b*]. ΔE	ISO 5631-2 ISO 11475

Type of the scope: <i>flexible for a part of the scope</i>			
Nº	Tested Products	Type of Test/Characteristic	Testing methods (standard / validated method)
1	2	3	4
1.20	Paper	CIE Whiteness, Illuminant D65/10 ⁰	ISO 11475
1.21	Paper	ISO Brightness, Illuminant D65/10 ⁰	ISO 2470-2
1.22	Paper	Security fibers [pcs]	IVM 4.1:2019
1.23	Paper	Paper security features	IVM 4.1:2019
1.24	Paper	Estimation of contraries [mm ² /m ²]	БДC EN ISO 15755
2.1	Inks	Color, CIE L*a*b* system, Illuminant D65/10 ⁰ , UV adjusted/excluded Color distance [L*a*b*]. ΔE	ISO 5631-2
2.2	Inks	Color strength, [index]	ISO 5631-2
2.3	Inks	Drying time on glass - surface, [h] Drying time on glass - in dept, [h]	ISO 2834-2
2.4	Inks	Viscosity, [Pa.s]	ISO 3219-1 ISO 3219-2
2.5	Inks	Initial tack, [TU], Max. tack, [TU], Time to reach maximum tack, [s]	ISO 12634
2.6	Inks	Particle size, [μm]	ISO 2834-1, ISO 2834-2
2.7	Inks	Rub resistance ink, [IGT prints]	ISO 2834-1, ISO 2834-2, ISO 2834-3
2.8	Inks	IR- range of the spectrum, spectral reflectance, [%]	IVM 4.2:2019
2.9	Inks	UV range of the spectrum, intensity [units] and wavelength [nm]	IVM 4.2:2019
2.10	Inks	Optical and physical characteristics of the inks requested by the client: magnetism, fluorescence, luminescence, phosphorescent, photochromic, optical variation, reactivity, thermochromic, Up conversion, migration, penetration, conductivity	IVM 4.2:2019
3.1	Finished product (printed securities and documents)	Rub resistance test-dry/wet printed securities and documents	ATSM D5264-98
3.2	Finished product (printed securities and documents)	Crumpling test-dry/wet printed securities and documents	ISO 2834-1, ISO 2834-2, ISO 2834-3

To perform sampling of:

Type of the scope: <i>flexible for a part of the scope</i>		
Nº	Product	Sampling Method (standardized/validated)
1	2	3
1.	Papers	ISO 186 IVM 5.1:2019
2.	Inks	IVM 5.1:2019

Flexible scope: *Implementing a new version of standards/documents or standards/documents replacing them is allowed. An updated list of standards/documents and their dated versions is provided by the laboratory.*

Fixed scope references:

IVM 4.1:2019 Security elements and special security features of papers;
IVM 4.2:2019 Special features of inks. IR-protection, UV-protection;
IVM 5.1:2019 Sampling to determine average quality of paper;
IVM 5.2:2019 Sampling of inks.

I ORDER

To issue the certificate of accreditation reg. № 119 ЛИ/12.10.2023, valid until 12.10.2027 and this order as an integral part of it.

The certificate of accreditation with the enclosure to be received by the Manager/ representative of Printing works of the Bulgarian National Bank JSC, Sofia, the head of the Technical Quality Control Sector, at Printing works of the Bulgarian National Bank JSC, or other authorized person in the office of EA BAS.

Upon receipt of the certificate and the enclosure issued, the accredited person is obliged to return to EA BAS the originals of accreditation certificate № 119 ЛИ/10.03.2021 and its enclosure – EA BAS order reg. № A 129/10.03.2021.

This order shall be notified to the Printing works of the Bulgarian National Bank JSC, Sofia within 3 (three) days from its issuance.

Eng. Irena Borislavova

Executive Director of EA BAS

