



**ORDER**

**№ A 264**

**Sofia, 03.07.2023**

Pursuant to Art. 10, para. 1, item 3, Art. 30, para. 1 of the Law on National Accreditation of Conformity Assessment Bodies and items 7 of the BAS QR 2 Accreditation Procedure, in connection with an open procedure reg. № 358/105 ЛИ/ПО/17.11.2022, report reg. № 358/105 ЛИ/7/В/23.03.2023, and Statement of the Accreditation Commission reg. № 358/105 ЛИ/8/В/27.06.2023, I hereby

**EXTEND THE SCOPE OF ACCREDITATION**

**of VN Engineering Ltd,  
Construction testing laboratory**

**Management Address:**

1336 Sofia, Lyulin VI, Petar Goranov Str, bl. 644, entr. 1, floor 1, app. 2

**Laboratory address:**

1756 Sofia, 125 Kliment Ohridski Str.

**To perform testing of:**

<b>Type of the scope:</b> <i>flexible</i>				
<b>№</b>	<b>Tested products</b>	<b>Type of test / characteristic</b>	<b>Testing methods (standard / validated method)</b>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
I.	Rock materials for unbound and hydraulically bound mixtures (1)/ Construction soils (2)	1.1.	Water content	БДС 644* (1,2)
		1.2.	Specific density	БДС 646* (1,2)
		1.3.	Bulk density in natural state/ Bulk density of scaffoldings/ Voids content/ Voids index	БДС EN ISO 17892-2 (2)
		1.4.	Modulus of elasticity and modulus of deformation under specific load by circular plate	БДС 15130 (1,2)
		1.5.	Determination of the maximum bulk density of the soil skeleton. Optimal water content of soils. Proctor method. Comparative density and water content	БДС EN 13286-2 (1) БДС 17146 (1,2) БДС 3214* (1,2)
		1.6.	Soil density by sand replacement method	AASHTO T 191 (1,2) ASTM D1556 / D1556M (1,2)

Type of the scope: <i>flexible</i>				
No	Tested products	Type of test / characteristic	Testing methods (standard / validated method)	
1	2	3	4	
		1.7.	Compacting factor	БДС 17146 (1,2)
		1.8.	Water content. Humidity	БДС EN 1097-5 (1,2)
		1.9.	. California Bearing Ratio (CBR)	БДС EN 13286-47 (1,2) ASTM D 1883 (1,2) ASTM D 4429* (1,2)
		1.10.	Deformation modulus/ Deformation modulus ratio/ Bearing capacity (ground-based reaction)	DIN 18134 (1,2)
		1.11.	Load-deformation curve	ASTM D1195/ D1195M (1,2) ASTM D1196/ D1196M (1,2)
II.	Concrete mixture (1) /concrete (2)	2.1.	Slump test	БДС EN 12350-2 (1) ASTM C 143/ C 143M (1) AASHTO T119M/T 119 (1)
		2.2.	Slump-flow test	БДС EN 12350-5 (1)
		2.3.	Degree of compaction	БДС EN 12350-4 (1)
		2.4.	Density	БДС EN 12350-6 (1)
		2.5.	Air content	БДС EN 12350-7 (1)
		2.6.	Compressive strength	БДС EN 12390-3 (2)
		2.7.	Flexural strength of concrete	БДС EN 12390-5 (2) ASTM C 78/ C 78M (2) ASTM C 293/ C 293M (2) AASHTO T 97 (2)
		2.8.	Splitting tensile strength	БДС EN 12390-6 (2) ASTM C 496/ C 496M (2)
		2.9.	Density of hardened concrete	БДС EN 12390-7 (2)
		2.10.	Testing cored specimen in compression	БДС EN 12504-1(2) БДС EN 12390-3(2)
		2.11.	Compressive strength in structures	БДС EN 13791:2019/ NA (2) ASTM C 805/C805M (2)
		2.12.	Water tightness	БДС EN 206+A2/NA, NA.N(2)
		2.13.	Depth of penetration of water under pressure	БДС EN 12390-8 (2)
III.	Cement mortar screeds	3.1.	Flexural strength	БДС EN 13892-2
		3.2.	Compressive strength	БДС EN 13892-2
		3.3.	Bond strength	БДС EN 13892-8
IV.	Bituminous mixtures and placed and compacted bituminous layers	4.1.	Bulk density	БДС EN 12697-6
		4.2.	Maximum density	БДС EN 12697-5
		4.3.	Dimensions of bituminous specimen	БДС EN 12697-29
		4.4.	Thickness of bituminous pavement	БДС EN 12697-36
		4.5.	Stability	БДС EN 12697-34

**Type of the scope:** *flexible*

<b>№</b>	<b>Tested products</b>	<b>Type of test / characteristic</b>		<b>Testing methods (standard / validated method)</b>
<b>1</b>	<b>2</b>	<b>3</b>		<b>4</b>
		4.6.	Marshall test (relative plasticity)	БДС EN 12697-34
		4.7.	Reference density/Compacting rate	БДС EN 12697-9*
		4.8.	Soluble Binder Content	БДС EN 12697-1
		4.9.	Mesh-size distribution (size composition)	БДС EN 12697-2
		4.10.	Bending	БДС 15131
		4.11.	Cross-section/longitudinal flatness/roughness	БДС EN 13036-7
		4.12.	Air voids content	БДС EN 12697-8
V.	Mortars	5.1.	Adhesion	БДС EN 1015-12
		5.2.	Air content	БДС EN 1015-7
		5.3.	Compressive strength	БДС EN 1015-11
		5.4.	Flexural strength	БДС EN 1015-11
VI.	Concrete in the structure	6.1.	Bond	БДС EN 1542
		6.1.	Carbonization depth	БДС EN 14630
VII.	Adhesives for tiles	7.1.	Adhesion: - Initial adhesion strength - Tensile adhesion strength after water immersion - Tensile adhesion strength after thermal treatment	БДС EN 12004-2
VIII.	Waterproofing	8.1.	Bond	БДС EN 13596
IX.	Sprayed concrete	9.1.	Compressive strength of young sprayed concrete	БДС EN 14488-2
		9.2.	Thickness of concrete sprayed on a substrate	БДС EN 14488-6
		9.3.	Water tightness	БДС EN 206+A2/NA, NA.N (2)
		9.4.	Penetration depth of compressed water	БДС EN 12390-8
X.	Steel structures	10.1.	Presence, location and concrete coating of reinforcement	БДС 1881-204
XI.	Rock materials	11.1.	Mesh-size distribution	БДС EN 933-1
		11.2.	Fine fraction - 0.063 mm sieve	БДС EN 933-1
		11.3.	Shape coefficient	БДС EN 933-4
		11.4.	Percentage of: - crashed grains; - entirely crushed grains; - fully rounded grains;	БДС EN 933-5
		11.5.	Resistance to crushing (fractionability) - Los Angeles coefficient	БДС EN 1097-2
		11.6.	Grain density - specific grain density	БДС EN 1097-6

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<b>№</b>	<b>Tested products</b>	<b>Type of test / characteristic</b>		<b>Testing methods (standard / validated method)</b>
<b>1</b>	<b>2</b>	<b>3</b>		<b>4</b>
			<ul style="list-style-type: none"> <li>- bulk density of grains in dry state</li> <li>- bulk density of grains in water-saturated- surface dry state</li> <li>- specific density of pre-dried grains</li> <li>- bulk density of grains water-saturated to constant mass</li> </ul>	
		11.7.	Water absorption	БДС EN 1097-6
		11.8.	Magnesium sulphate value	БДС EN 1367-2
		11.9.	Humus content	БДС EN 1744-1
		11.10.	Flow limit	БДС EN ISO 17892-12; Appendix № 15 to Art. 168, para. 1 of Ordinance № РД -02-20-2, SG № 79/2018
		11.11.	Drain limit	БДС EN ISO 17892-12; Appendix № 16 to art.168 para. 1 of Ordinance № РД -02-20-2, SG № 79/2018
		11.12.	Ductility factor	БДС EN ISO 17892-12; Appendix № 16 to art.168 para. 1 of Ordinance № РД -02-20-2, SG № 79/2018
		11.13.	Resistance to fractionability under static load	БДС EN 206+A2/NA, Appendix NA.Q
		11.14.	Sand equivalent	БДС EN 933-8
		11.15.	Methylene blue value	БДС EN 933-9
		11.16.	Elastic and Deformation Modulus by Circular Plate Loading	БДС 15130
		11.17.	Determination of the maximum bulk density of the frame. The optimum water content of soils. Proctor method.	БДС EN 13286-2 БДС 17146
		11.18.	Water content. Humidity	БДС EN 1097-5
		11.19.	California Load-bearing Capacity Indicator (CBR)	БДС EN 13286-47 ASTM D 1883

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<b>1</b>	<b>2</b>	<b>3</b>		<b>4</b>
		11.20.	Density of soils by the method of sand substitution	AASHTO T 191
		11.21.	Compaction ratio	БДС 17146
		11.22.	Deformation modules/ Relation of deformation / Load bearing capacity modules (ground base response)	DIN 18134
		11.23.	Load- deformation ratio	ASTM D1195/ D1195M ASTM D1196/ D1196M
XII.	Corrosion protection and fire protection coatings, paints and varnishes on metals	12.1.	Thickness of a nonmagnetic coating on a magnetic base	БДС EN ISO 2178

**To perform sampling of:**

<b>Type of the scope:</b> <i>flexible</i>		
<b>№</b>	<b>Products</b>	<b>Sampling methods (standard/validated method)</b>
<b>1</b>	<b>2</b>	<b>3</b>
1.	Concrete mixtures	БДС EN 12350-1
2.	Rock materials for unbound and hydraulically bound mixtures (1)/ Construction soils (2)	БДС EN 932-1 (1,2)
3.	Bituminous mixtures and placed and compacted bituminous layers	БДС EN 12697-27, cl. 4.1, cl. 4.7
4.	Mortars	БДС EN 1015-2/A1
5.	Sprayed concrete	БДС EN 14488-1
6.	Cement mortar screeds	БДС EN 13892-1
7.	Concrete	БДС EN 12504-1

**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 laboratory.*

**\*Note:** *Repealed but not replaced standards with regard to the test method*

**References:**

Appendix № 15 to Art. 168 para. 1 of Ordinance № ПД-02-20-2, SG № 79/2018 - method for determining the Flow Limit

Appendix № 16 to Art. 168 para. 1 of Ordinance № ПД -02-20-2, SG №79/2018 - Method for determining the Drain Limit and Ductility parameter

## I ORDER

To issue the certificate of accreditation reg. № 105 ЛИ/03.07.2023, valid until 15.04.2026, and this order as an integral part of it.

The certificate of accreditation with the enclosure to be received by the Manager / representative of the VN Engineering Ltd. Sofia, the head of Construction Testing Laboratory at VN Engineering Ltd. 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 № 105 ЛИ/15.04.2022, valid until 15.04.2026 and its enclosure – EA BAS order reg. № A 261/15.04.2022.

This order shall be notified to VN Engineering Ltd. within 3 (three) days from its issuance.

**Eng. Irena Borislavova**

*Executive Director of EA BAS*

