

NATIONAL DECLARATION OF PERFORMANCE

No. 230-B500B-01-2024

1. Name and trade name of the construction product:

Ribbed bars B500B for concrete reinforcement

2. Type designation of the construction product:

Ribbed bars B500B

3. Intended application(s) of the product:

B500B ribbed bars with a diameter of 8.0÷32.0 mm are designed for reinforcing reinforced concrete elements and structures designed according to the rules and requirements PN-EN 1992-1-1:2008 (Eurocode 2) for steel ductility class B with a characteristic yield strength of 500 MPa.

B500B ribbed bars with a diameter of 8.0 ÷ 16.0 mm can be used for reinforcing reinforced concrete structures operating under dynamic and repeatedly changing loads.

4. Name and address of manufacturer's registered office and place of the product production:

PRIVATE JOINT STOCK COMPANY "KAMET-STEEL"

72 18B, 51925 DNIPROPIETROVSK OBLAST, KAMIANSKIE, UKRAINE

5. Name and address of authorised representative, if any:

METINVEST POLSKA Sp. z o.o., 72 Warszawska 33, 40-010, Katowice, Poland

6. National system used for assessment and verification of constancy of performance characteristics: **1+**

7. National technical specification:

7b. National technical assessment: **ITB-KOT-2023/2525 Revision 1**

Technical Assessment Body / National Technical Assessment Body:

INSTITUTE OF CONSTRUCTION EQUIPMENT, ul. Filtrowa 1, 00-611, WARSAW (INSTYTUT TECYNIKI BUDOWLANEJ, ul. Filtrowa 1, 00-611, WARSZAWA)

Name of the accredited certification body, accreditation number, and certificate number:

INSTITUTE OF CONSTRUCTION EQUIPMENT, ul. Filtrowa 1, 00-611, WARSAW (INSTYTUT TECYNIKI BUDOWLANEJ, ul. Filtrowa 1, 00-611, WARSZAWA)

CERTIFICATION CENTER, 1 Filtrowa Street, 00-611, WARSAW (ZAKLAD CERTYFIKACJI, ul. Filtrowa 1, 00-611, WARSZAWA)

ACCREDITATION CERTIFICATE No. AC 020

8. Declared performance characteristics:

Main characteristics of the construction product for intended application(s)	Declared performance characteristics			Remarks
1	2			3
1. Chemical composition, %	Chemical element	According to the analysis		main characteristics of the product
		heat	finished rolled steel:	
	C	≤ 0.22	≤ 0.24	
	Mn	≤ 1.60	≤ 1.70	
	Si	≤ 0.60	≤ 0.65	
	S	≤ 0.050	≤ 0.055	
	P	≤ 0.050	≤ 0.055	
	Cu	≤ 0.80	≤ 0.85	
	N	≤ 0.012	≤ 0.014	
	Ceq	≤ 0.50	≤ 0.52	

1	2			3
2. Dimensions, Rib Characteristics, Weight per Unit Length	Nominal diameter (d _s), mm	Minimum ribbing ratio (f _R)	Mass per unit length (m), kg/m ₄	main characteristics of the product
	8.0	0.045	0.395 ± 4.0%	
	10.0	0.052	0.617 ± 4.0%	
	12.0	0.056	0.888 ± 4.0%	
	14.0	0.056	1.21 ± 4.0%	
	16.0	0.056	1.58 ± 4.0%	
	20.0	0.056	2.47 ± 4.0%	
	25.0	0.056	3.85 ± 4.0%	
	28.0	0.056	4.83 ± 4.0%	
	32.0	0.056	6.31 ± 4.0%	
3. Mechanical properties	Yield Strength R _e , MPa		≥ 500	main characteristics of the product
	Ultimate tensile strength R _m , МПа		≥ 550	
	Ratio R _m /R _e		≥ 1.08	
	Total elongation at maximum force A _{gt} , %		≥ 5.0	
	Elongation, A ₅ , %		≥ 14.0	
	Angular deflection ρειστοανχε α = 20° after bending on an angle α = 90° and aging, on a bar with a diameter of: - 5 d _s at d _s = 8 ÷ 16 mm - 8 d _s at d _s = 20 ÷ 25 mm - 10 d _s at d _s = 28 ÷ 32 mm		without cracks	
	Fatigue life of bars with a diameter of 8.0 ÷ 16.0 mm, MPa, at σ _{max} = 300 MPa and amplitude of 160 MPa		≥ 2 · 10 ⁶ cycles	

9. The performance characteristics of the above-mentioned product shall comply with all declared performance characteristics specified in clause 8. This national declaration of performance has been issued in accordance with the Act of 16 April 2004 on Construction Products, under the sole responsibility of the manufacturer.

The national declaration of performance is available at: <http://ks.metinvestholding.com>.

Signed on behalf of the manufacturer:

Technology and Quality Director

Viktor DEMBYTSKY

(position)

(signature)

Kamianske, Ukraine
April 1, 2024

(place and issue date)

