METINVEST

NATIONAL DECLARATION OF PERFORMANCE NO. 230-B500SP-01-2024

1. Name and trade name of the construction product:
Ribbed reinforcing bars with diameters of 8.0–32.0 mm, made of B500SP steel grade, intended for concrete reinforcement.

2. Type designation of the construction product:
Ribbed bars of class C

3. Intended use or uses:
Weldable reinforcing steel B500SP in bars with nominal diameters of 8.0–32.0 mm is intended for the reinforcement of reinforced concrete structures.

4. Name and address of the manufacturer's registered office and the place of production:
PRIVATE JOINT STOCK COMPANY "KAMET-STEEL"
18B, Soborna str., Kamianske, Dnipropetrovsk Region, 51925, Ukraine

5. Name and address of authorised representative, if any:
METINVEST POLSKA Sp. z o.o., 33, Warshawska str, 40-010, Katowice, Poland (ul.Warszawska 33, 40-010, Katowice, Polska)

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

7. National technical specification:
7a. Polish standard for the product
Standard PN-H-93220:2018-02 – Steel for Concrete Reinforcement Weldable reinforcing steel B500SP Bars and deformed bars

Name of the accredited certification body, accreditation number, and national certificate number, or name of the accredited laboratory/laboratories and accreditation number:

Testing and Certification Centre SIMPTESTCERT Sp. Z.o.o.,
11, Generała Zygmunta Waltera Jankego Street,
40-615 Katowice
ACCREDITATION CERTIFICATE NO. AC 009

National Certificate of Constancy of Performance No. 009-UWB-251

7b. National technical assessment:

Technical Assessment Body / National Technical Assessment Body:

Not applicable

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

Not applicable

8. Declared performance characteristics:

Key characteristics of the construction product for its intended use or uses		Declared performance properties			Comments
		Chemical element	Analyses [%]		
			Heat	Product	
Bonding ability	Limitation of element content	C	≤ 0.22	≤ 0.24	
		Mn	≤ 1.60	≤ 1.65	
		Si	≤ 0.55	≤ 0.60	
		S	≤ 0.050	≤ 0.055	
		P	≤ 0.050	≤ 0.055	
		Cu	≤ 0.80	≤ 0.85	
		N	≤ 0.012	≤ 0.014	
		C_{eq}	≤ 0.50	≤ 0.52	

Durability	Limitation of element content	as above				
Mechanical properties	Yield strength Re, MPa	500-625				
	Rm/Re ration	1.15-1.35				
	Total elongation at maximum load Agt, %	≥ 8				
	Elongation, A_5, %	≥ 16				
Fatigue hardness for d ≤ 25 mm, σ_{max} = 300 MPa, 2σ = 175 MPa for d >25 mm, σ_{max} = 300 MPa, 2σ = 160 MPa		No partial or complete failures after 2 million cycles				
Fatigue resistance		No partial or complete failures after 5 cycles				
Flexibility	Bending and unbending	No signs of rupture or visible cracks.				
	Bending test for static strength of bars with a diameter ≤ 16 mm	Complies with the above-mentioned requirements regarding R_e, R_m/R_e, A_5, A_{gt}				
Nominal diameter, nominal cross-sectional area, adhesion (relative rib area fR), mass per unit length		Nominal diameter (ds) [mm]	Nominal cross-sectional area [mm²]	Relative rib area (fR)	Mass per unit length [kg/m]	
		8.0	50.3	≥ 0.045	0.395 ± 6.0%	
		10.0	78.5	≥ 0.052	0.617 ± 4.0%	
		12.0	113	≥ 0.056	0.888 ± 4.0%	
		14.0	154	≥ 0.056	1.21 ± 4.0%	
		16.0	201	≥ 0.056	1.58 ± 4.0%	
		20.0	314	≥ 0.056	2.47 ± 4.0%	
		25.0	491	≥ 0.056	3.85 ± 4.0%	
		28.0	616	≥ 0.056	4.83 ± 4.0%	
		32.0	804	≥ 0.056	6.31 ± 4.0%	
Length	Nominal Length	≤ 18 m				
	Length deviation	+100mm / -0mm				

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) (full name)

Kamianske, Ukraine
10 December 2024
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(place and issue date)