



275/2013. Govern. decree
Nr.20

ÉMI NON-PROFIT LIMITED LIABILITY COMPANY FOR QUALITY
CONTROL AND INNOVATION IN BUILDING
ENGINEERING SERVICES DIRECTORATE
CONFORMITY ASSESSMENT CENTER
CERTIFICATION OFFICE

H-2000 Szentendre, Dózsa György út 26. Postal address: H-2001 Szentendre, Pf : 180.
Phone: +36 (26) 502 300 E-mail: tanusitas@emi.hu WEB: http://www.emi.hu

CERTIFICATE OF CONSTANCY OF PERFORMANCE

20-CPR-360-(C-20/2019)

In compliance with Government decree no. 275/2013. (issued on 16th July) this certificate applies to the construction product

JSC Moldova Steel Works made weldable, ribbed, hot rolled reinforcing steel in bars in steel quality B500B (DIN 488-1:2009 and MSZ/T 339:2012.03)

with product performance and intended use shown in the annex as pages 2/3 – 3/3 of this certificate and produced by

JSC Moldova Steel Works
5500 Rybnitsa, Industrialnaya Street 1., Moldova

and produced in the manufacturing plant:

JSC Moldova Steel Works
5500 Rybnitsa, Industrialnaya Street 1., Moldova

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in **National Technical Assessment no. A-28/2019** dated at **11.11.2019** under system (1+) are applied and that

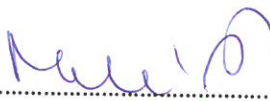
the product fulfils all the prescribed requirements set out above.

This certificate was first issued on 21.05.2020 and will remain valid as long as the test methods and/or factory production control requirements included in the National Technical Assessment used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

This certificate consists of 3 pages!

Szentendre, 21.05.2020




Ágnes Molnár
Head of Certification Office



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ANNEX

Nominal diameter:

Ø8 – Ø25 mm

Intended use:

The steel bars may be used as reinforcement of concrete structures according to EN 10080:2005, in steel quality B500B (DIN 488-1:2009 and MSZ/T 339:2012.03).

The reinforcing steel bars can be taken into account with the parameters of B60.50 (MSZ 339:1987) reinforcing steels by performing diagnostic works on building designed in accordance with withdrawn standards series no. MSZ 15022-1;-2;-4;-7:1986.

The reinforcing steel bars can be taken into account as product in ductility class B with $R_{eH} = 500$ MPa declared yield strength (calculated from nominal cross-section) at design works and strength calculations, according to Annex C of standard no. EN 1992-1-1:2010 (EUROCODE 2).

Essential characteristic	Performance
Yield or proof strength (R_{eH} or $R_{p0,2}$) ¹⁾	≥ 500 (characteristic) ≥ 485 (individual)
Tensile strength (R_m)	≥ 580 (characteristic) ≥ 563 (individual)
Stress ratio, R_m / R_{eH}	≥ 1,08 (characteristic) ≥ 1,06 (individual)
Yield ratio, $R_{e,act} / R_{e,nom}$	≤ 1,30 (individual)
Extension (A_{gt})	≥ 5,0 (characteristic) ≥ 4,5 (individual)
Elongation, A_s	≥ 18,0 (average)
Rib height, a_m [mm]	0,03·d – 0,15·d
Rib angle, β [°]	between 35° and 75°
Circumference without rib, Σe_i (mm)	≤ d· $\pi/4$
Distance between ribs, c (mm)	0,4·d – 0,15·d
Relativ rib surface, f_R , minimum	d ≤ 6 mm: 0,035 6 mm < d ≤ 12 mm: 0,040 d > 12 mm: 0,056
- 180° bend test without cracking	with 3d spike diameter

¹⁾ Conventional yield point if no upper yield point is indicated.

Szentendre, 21.05.2020

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Bizonylat azonosító: KBIA-IV-2-20190920_TÁT_EN



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ANNEX

Essential characteristic		Performance
Fire resistance class		A1
Tolerances from nominal cross-section (%)		d ≤ 8 mm: ± 6,0 d > 8mm: ± 4,5
Impact strength at 0 °C, KV (J) d ≥ 16 mm		average ≥ 28 individual ≥ 21 (75%)
Carbon equivalent, C _{eq} (%) - dose analysis - product analysis		≤ 0,50 ≤ 0,52
Dose Analysis	C ^a ; S; P; N ₂ ^b ; Cu	≤ 0,22; ≤ 0,050; ≤ 0,050; ≤ 0,012; ≤ 0,80
Product analysis	C ^a ; S; P; N ₂ ^b ; Cu	≤ 0,24; ≤ 0,055; ≤ 0,055; ≤ 0,014; ≤ 0,85

^a The maximum prescribed value of carbon may be exceeded by 0,03% by mass if, at the same time, the carbon equivalent is reduced by 0,02% by mass.

^b Higher nitrogen contents are permissible if the content of nitrogen-fixing elements is sufficient.

Szentendre, 21.05.2020

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