

CERTIFICATE OF CONFORMITY

138-CPD-12-(C-4/2007)

On the basis of Construction Products Directive – item (b) of article 14 (1) of Council's Directive No. 89/106/EEC of December 21, 1988 and article 4 of Directive No. 93/68/EEC of July 22, 1993 modifying the above Directive –, Section 41 of Hungarian Act LXXVIII of 1997 on formation and protection of the built environment as well as on the basis of the joint Ministerial Decree No. 3/2003. (I. 25.) BM-GKM-KvVM of Ministry of Interior, Ministry of Economy and Transport, and Ministry of Environment Protection and Water Management on detailed regulations of technical requirements, attestation of conformity, placing on the market and use of the construction products, we found that

Steel for the reinforcement of concrete (EN 10080:2005)

Weldable, ribbed, hot rolled reinforcing steel in bars in steel quality B500SP (PN-H-93220:2006) with $R_e \geq 500$ MPa yield strength calculated from nominal cross-section

(Products of product family are shown in the annex as page 2/2 of this certificate)

construction product
placed on market by

CELSA "Huta Ostrowiec" Sp. z o.o.

ul. Samsonowicza 2 / 27-400 Ostrowiec Świętokrzyski, Poland

manufacturer
and produced in the factory

CELSA "Huta Ostrowiec" Sp. z o.o.

ul. Samsonowicza 2 / 27-400 Ostrowiec Świętokrzyski, Poland

is submitted by the manufacturer to a factory production control and to the further testing of samples taken at the factory; the samples taken at the factory are made available to external inspection at a frequency set forth in Technical Approval no. A-766/2006.

Furthermore, we found that the designated certification body – ÉMI Non-profit Ltd. (Diószegi út 37., H-1113 Budapest, Hungary) – has performed the initial type-testing for the relevant characteristics of the product, the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

On the basis of the foregoing we certify hereby that the **product is in compliance** with all requirements set out in the Technical Approval no. A-766/2006 and standard no. EN 10080:2005

This certification shall be effective and valid until withdrawal, provided that the relevant Technical Approval, technical characteristics of the product and conditions of production of the product have not been subject to change.

This certificate consists of 2 pages!

Issue: 4

Dated at Budapest, 15th April 2011.



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Pataki Erika
Head of Certification Office
TEI – Certification body
of ÉMI Non-profit Ltd.

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Annex

**Weldable, ribbed, hot rolled reinforcing steel in bars in steel quality B500SP (PN-H-93220:2006)
with $R_e \geq 500$ MPa yield strength calculated from nominal cross-section
Nominal diameters (d): Ø8, Ø10, Ø12, Ø16, Ø20, Ø25 and Ø32 mm**

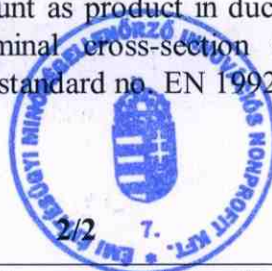
Relevant characteristics	Requirement
Yield strength (R_{eH}):	500–625 MPa (individual) ≥ 490 MPa (evaluating)
Tensile strength (R_m):	≥ 590 MPa
Elongation (A_5): Elongation (A_{gt}):	$\geq 18\%$ (average); $\geq 16\%$ (individual) $\geq 8\%$
Stress ratio (R_m/R_e):	1,15–1,35
Bendability:	pass
Tolerances:	pass
Bonding strength (f_R):	$d = 8$ mm: $\geq 0,045$ $d = 10$ mm: $\geq 0,052$ $d > 12$ mm: $\geq 0,056$
Weldability (C_{eq}):	$\leq 0,52$
Durability:	$C \leq 0,24$ $S \leq 0,055$ $P \leq 0,055$ $N \leq 0,014$ $Cu \leq 0,85$ $C_{eq} \leq 0,52$ $Si \leq 0,60$ $Mn \leq 1,65$
Fatigue (2 million cycles):	pass
Cyclic load:	pass
Weldability (MSZ 339, M4)	pass

Notes:

- the rolling mark applied on the product:  (1-17)
- The steel bars can be taken into account with the parameters of B 60.50 (MSZ 339:1987) by performing diagnostic works on building designed in accordance with standards no. MSZ 15022:1986 and no. MSZ 15022:1986/1M:1992
- The steel bars can be taken into account as product in ductility class C with $R_e \geq 500$ MPa yield strength calculated from nominal cross-section at design works and strength calculations, according to Annex C of standard no. EN 1992-1-1:2005 (EUROCODE 2).

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Pataki Erika