



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

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## CERTIFICATE OF CONSTANCY OF PERFORMANCE

20-CPR-144-(C-34/2010)

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

**Factory-made welded fabric manufactured by machine welding,  
produced by Yssel Steel SK, s.r.o., from weldable, ribbed, cold formed reinforcing steel  
wires in steel quality B500A (DIN 488-1:2009 and MSZ/T 339:2012.03)  
with  $\varnothing \geq 5$  mm nominal diameter**

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

**Yssel Steel SK, s.r.o.**  
Mierová 21, SK-941 11 Palárikovo, Slovakia  
and produced in the manufacturing plant:

**Yssel Steel SK, s.r.o.**  
Továrenská 1, SK-943 03 Štúrovo, Slovakia

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in **National Technical Assessment no. A-260/2015** dated at 17.05.2019 under system (1+) are applied and that

***the product fulfils all the prescribed requirements set out above.***

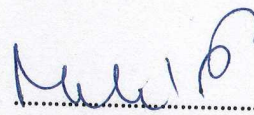
This certificate was first issued\* on 10.10.2018 and will remain valid as long as the test methods and/or factory production control requirements included in the National Technical Assessment, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

***This certificate consists of 2 pages!***

Issue: 6.

Dated at Szentendre, on 18.06.2020



  
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**Ágnes Molnár**  
Head of Certification Office

\* certificate was issued first on **23<sup>rd</sup> April 2012** within the period of validity of joint Ministerial Decree No. 3/2003. (25<sup>th</sup> January) BM-GKM-KvVM of Ministry of Interior, Ministry of Economy and Transport, and Ministry of Environment Protection and Water Management.



## CERTIFICATE OF CONSTANCY OF PERFORMANCE

20-CPR-144-(C-34/2010)

ANNEX

**Nominal diameters:**

$\varnothing \geq 5 \text{ mm}$

**Intended use of the product:**

The steel welded fabrics may be used as reinforcement of concrete structures according to EN 10080:2005, in steel quality B500A (DIN 488-1:2009 and MSZ/T 339:2012.03).

The reinforcing steel welded fabrics can be taken into account with the parameters of BHB 55.50 (MSZ 982:1987) reinforcing steel by performing diagnostic works on building designed in accordance with withdrawn standards series no. MSZ 15022:1986 and no. MSZ 15022:1986/1M:1992.

The reinforcing steel welded fabrics can be taken into account as product in ductility class A with  $R_{p0,2} = 500 \text{ MPa}$  declared proof 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 characteristics	Performance	
Rib geometry	- $a_m$ [mm]	$0,03 \cdot d - 0,15 \cdot d$
	- $\beta$ [°]	between 35° and 75°
	- $\Sigma e_i$ [mm]	$\leq d \cdot \pi/4$
	- $c$ [mm]	$0,4 \cdot d - 1,2 \cdot d$
	- $f_R$ , minimum (individual value)	$d \leq 6 \text{ mm}$ : 0,035 $6 \text{ mm} < d \leq 12 \text{ mm}$ : 0,040 $d > 12 \text{ mm}$ : 0,056
Proof or yield strength ( $R_{p0,2}$ or $R_{eH}$ ) <sup>1)</sup>	$\geq 500 \text{ MPa}$ (characteristic) $\geq 485 \text{ MPa}$ (individual)	
Tensile strength ( $R_m$ )	$\geq 550 \text{ MPa}$ (characteristic) $\geq 534 \text{ MPa}$ (individual)	
Stress ratio, $R_m / R_{eH}$	$\geq 1.05$ (characteristic) $\geq 1.03$ (individual)	
Yield ratio, $R_{e,act} / R_{e,nom}$	$\leq 1.30$ (individual)	
Extension ( $A_{gt}$ )	$\geq 2.5 \%$ (characteristic) $\geq 2.25 \%$ (individual)	
Elongation, $A_5$	$\geq 10.0 \%$ (average)	
Shear strength	$\geq 0.3 R_{p0,2}$ [MPa]	
Shear force	$\geq 0,3 R_{p0,2} \cdot S_{0,nom}$ [MPa]	
Nominal mass per metre	$(d2\pi/4) \cdot 7850 \text{ kg/m}^3$	
Tolerances from nominal cross-section	$d \leq 8 \text{ mm}$ : $\pm 6.0$ $d > 8 \text{ mm}$ : $\pm 4.5$	
Size of welded fabrics:		
- wire diameter ratio	0,6 – 1,67	
- tolerance on width and length	$\pm 25 \text{ mm}$ ; $\pm 0.5\%$ (whichever is bigger)	
- pitch size (P)	$\geq 50 \text{ mm}$	
- tolerance on pitch size	$\pm 15 \text{ mm}$ ; $\pm 7.5\%$ (whichever is bigger)	
- overhang (u)	$\geq 25 \text{ mm}$ (nominal)	
Batch analysis: C; S; P; N <sub>2</sub> ; Cu	$\leq 0,22$ ; $\leq 0,050$ ; $\leq 0,050$ ; $\leq 0,012$ ; $\leq 0,80$	
Carbon equivalent, CEV [%]	$\leq 0,50$	
<sup>1)</sup> Upper yield strength ( $R_{eH}$ ), when real yield phenomena occurs, otherwise proof strength ( $R_{p0,2}$ )		

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