U. S. Steel Košice, s.r.o.
A Subsidiary of United States Steel

DECLARATION OF PERFORMANCE
NO. USSK-03/2019

1. Unique identification code for product type:	**Flat hot rolled structural steel product – embossed plate, of grades acc. to EN 10025-2:2004/AC:2005[1,2]: S235JR, S235J0, S235J2, S275JR, S275J0, S275J2 design "T" and design "R" acc. to DIN 59220:2000,** Produced in thickness 3,0 – 10,0 mm *[1] applies also for the delivery condition: +AR, +N* *[2] supplied also with the designation C - suitable for cold forming*
2. Intended use for construction product:	For use in metal structures or in composite metal and concrete structures.
3. Producer:	U. S. Steel Košice, s. r. o. Vstupný areál U. S. Steel 044 54 Košice Slovenská Republika Producing plant: Hot Rolling Mill Division Plant
4. Authorized representative:	not relevant
5. Assessment system and verification for constancy of performance:	EN 10025-1:2004, Annex ZA, system 2+
6a. Harmonized standard:	EN 10025-1:2004 Hot rolled products of structural steels. Part 1: General technical delivery conditions.
The notified subject:	Strojírenský zkušební ústav, s.p. Hudcova 424/56b 621 00 Brno Czech Republic **Identification number:** 1015 Issued: ***Certificate of conformity of the factory production control No. 1015-CPR-J-02517-19***

7. Declared performance:

Essential characteristics	Performance		Technical specification
Tolerancie rozmerov a tvaru	*Tolerances on dimensions and shape according to standards EN 10029 and DIN 59220.*		EN 10029:2010 DIN 59220:2000
Minimum elongation *A* *(in transversal direction)*	**S235JR**	17 % [a] 18 % [b] 19 % [c] 24 % [d]	EN 10025-2:2004 Art. 7.3.1, Tab.7
	S235J0		
	S235J2		
	S275JR	15 % [a] 16 % [b] 17 % [c] 21 % [d]	
	S275J0		
	S275J2		

[a] at nominal thickness ≤ 2 mm
[b] at nominal thickness > 2 mm and ≤ 2,5 mm
[c] at nominal thickness > 2,5 mm and < 3 mm
[d] at nominal thickness ≥ 3 mm

Minimum upper yield strength R_{eH}	**S235JR**	235 MPa	EN 10025-2:2004 Art. 7.3.1, Tab. 7
	S235J0		
	S235J2		
	S275JR	275 MPa	
	S275J0		
	S275J2		

Tensile strength R_m	**S235JR**	360 to 510 MPa	EN 10025-2:2004 Art. 7.3.1, Tab.7
	S235J0		
	S235J2		
	S275JR	430 to 580 MPa [e]	
	S275J0	410 to 560 MPa [f]	
	S275J2		

[e] at nominal thickness < 3 mm *[f] at nominal thickness ≥ 3 mm*

Nárazová práca *KV* [g] (min.)	**S235JR** [h]	27 J at +20 °C	EN 10025-2:2004 Art. 7.3.1, 7.3.2, Tab. 9
	S235J0	27 J at 0 °C	
	S235J2	27 J at -20 °C	
	S275JR [h]	27 J at +20 °C	
	S275J0	27 J at 0 °C	
	S275J2	27 J at -20 °C	

[g] At nominal thickness < 6 mm the Charpy impact test is not performed, in as per EN 10025-1:2004, Article 7.3.2.1
[h] The impact properties are verified only when specified at the time of the order.

Weldability	*Based on carbon equivalent CEV calculation the material is weldable.*	EN 10025-2:2004 Art. 7.4.1

		C max.	Si max.	Mn max.	P	S max.	N max.	Cu	Cr	Nb max.	V max.	Al min.	Ti max.	Ni max.	Mo max.	CEV max.
		EN 10025-2:2004; Art. 7.2; 7.4.3														
		Tab. 2														Tab. 6
Durability (chemical composition %)	***S235JR***	0,17	-	1,40	max.0,035	0,035	0,012 [j]	max.0,55	-	-	-	-	-	-	-	0,35
	S235J0	0,17	-	1,40	max.0,030	0,030	0,012 [j]	max.0,55	-	-	-	-	-	-	-	0,35
	S235J2	0,17	-	1,40	max.0,025	0,025	-	max.0,55	-	-	-	-	-	-	-	0,35
	S275JR	0,21	-	1,50	max.0,035	0,035	0,012 [j]	max.0,55	-	-	-	-	-	-	-	0,40
	S275J0	0,18	-	1,50	max.0,030	0,030	0,012 [j]	max.0,55	-	-	-	-	-	-	-	0,40
	S275J2	0,18	-	1,50	max.0,025	0,025	-	max.0,55	-	-	-	-	-	-	-	0,40

[i] For grades suitable for cold roll forming max. 0,22 % C max.
[j] The max. value for Nitrogen does not apply if the chemical composition shows a minimum total Al content of 0,020 % or alternatively sufficient other binding elements are present.

The Declaration of performance for download: http://www.usske.sk/sk/produkty/ocel-valcovana-za-tepla/vyhlasenie-o-parametroch

8. The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

The declaration of performance is valid since November 18, 2019

Name: Ing. Štefan Novák
Position: Director of Hot Rolling Mill DP

Ing. Radomír Chovanec
Manager of QMS USSK

Signature: