

DECLARATION OF PERFORMANCE NO. USSK-08/2023

1. Unique identification code for product type:	Flat hot rolled structural steel product – embossed plate, of grades acc. to EN 10025-2 ^{1,2)} : S235JR, S235J0, S235J2, S275JR, S275J0, S275J2 design “T” and design “R” acc. to EN 10363, 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:	DIN EN 10025-1:2005, Annex ZA, system 2+
6a. Harmonized standard:	DIN EN 10025-1:2005 Hot rolled products of structural steels. Part 1: General technical delivery conditions.
The notified subject:	Technischer Überwachungsverein Thüringen e.V. Melchendorfer Straße 64 99096 Erfurt Germany Identification number: 0090 Issued: Certificate of conformity of the factory production control No. 0090-CPR-1178

7. Declared performance:

Essential characteristics	Performance	Technical specification
Tolerancie rozmerov a tvaru	Tolerances on dimensions and shape according to standards EN 10029 and EN10363.	EN10363
Minimum elongation A (in transversal direction)	S235JR	17 % ^{a)}
	S235J0	18 % ^{b)}
	S235J2	19 % ^{c)}
	S275JR	24 % ^{d)}
	S275J0	15 % ^{a)}
	S275J2	16 % ^{b)}
		17 % ^{c)}
		21 % ^{d)}
^{a)} at nominal thickness ≤ 2 mm ^{c)} at nominal thickness > 2,5 mm and < 3 mm ^{b)} at nominal thickness > 2 mm and ≤ 2,5 mm ^{d)} at nominal thickness ≥ 3 mm		

Minimum upper yield strength <i>R_{eH}</i>	S235JR	235 MPa	EN 10025-2 Art. 7.3.1, Tab. 6
	S235J0		
	S235J2		
	S275JR	275 MPa	
	S275J0		
	S275J2		

Tensile strength <i>R_m</i>	S235JR	360 to 510 MPa	EN 10025-2 Art. 7.3.1, Tab. 6
	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 <i>KV</i> ^{g)} (min.)	S235JR ^{h)}	27 J at +20 °C	EN 10025-2 Art. 7.3.1, 7.3.2, Tab. 8
	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 10025-1:2005, 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 Art. 7.4.1
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Durability (chemical composition %)	C	Si	Mn	P	S	N	Cu	Cr	Nb	V	Al	Ti	Ni	Mo	CEV
	max.	max.	max.		max.	max.			max.	max.	min.	max.	max.	max.	max.
	EN 10025-2:2004; Art. 7.2; 7.4.3														

Tab. 1															Tab. 5
S235JR	0,17	-	1,40	max.0,035	0,035	0,012 ^{b)}	max.0,55	0,29	-	0,10	-	-	0,42	0,11	0,35
S235J0	0,17	-	1,40	max.0,030	0,030	0,012 ^{b)}	max.0,55	0,29	-	0,10	-	-	0,42	0,11	0,35
S235J2	0,17	-	1,40	max.0,025	0,025	-	max.0,55	0,29	-	0,10	-	-	0,42	0,11	0,35
S275JR	0,21	-	1,50	max.0,035	0,035	0,012 ^{b)}	max.0,55	0,29	-	0,10	-	-	0,42	0,11	0,40
S275J0	0,18	-	1,50	max.0,030	0,030	0,012 ^{b)}	max.0,55	0,29	-	0,10	-	-	0,42	0,11	0,40
S275J2	0,18	-	1,50	max.0,025	0,025	-	max.0,55	0,29	-	0,10	-	-	0,42	0,11	0,40

^{b)} For grades suitable for cold roll forming max. 0,22 % C max.

^{c)} 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 June 27, 2023

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

Signature:



Ing. Radomír Chovanec
Director QMS

