

Declaration of Performance

DoP NO: TDÇ.DOP.001

305 / 2011 / EU Construction Products Regulation

1. **Product type** : Long products of hot rolled structural steels equal angles, UPN profiles, IPN profiles, IPE profiles according to EN 10025-2

Product Type	Steel Grade	Nominal Width (mm)		Product Thickness (mm)	
		Min. Width	Max. Width	Min. Thickness	Max. Thickness
Equal angles	S235JR-S275JR-S355JR	30	120	2,8	13
UPN	S235J0-S275J0-S355J0	50x25	160	-	-
IPN	S235J2-S275J2-S355J2	80	160	-	-
IPE	S235J2-S275J2-S355J2	80	160	-	-

2. **Intended use** : **Structural material for general purpose**
3. **Manufacturer** : **TOSYALI DEMIR CELIK SAN. A.S.**
Organize Sanayi Bölgesi
Sarıseki / Iskenderun/Hatay / TURKEY
4. **Authorised representative** : **NPD**
5. **System of performance immutability evaluation and verification** : **Sistem 2+**
6. **Harmonized Standard** : **EN 10025-1**
- Notified Body** : **SZUTEST TECHNICAL INSPECTION AND CERTIFICATION SERVICE CO.**
Notified Body No: 2195 - Certificate No: 2195-CPR-1730301

7. Declared Performances

Performance Characteristics	Equal angles	Equal angles Declared Performance	UPN	UPN Declared Performance	IPN	IPN Declared Performance	IPE	IPE Declared Performance
Dimensions and Shape Tolerances	EN 10056	Pass	EN 10365 EN 10279	Pass	EN 10365 EN 10024	Pass	EN 10365 EN 10034	Pass
Yield Strength	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6
Tensile Strength	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6
% Elongation	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6	EN 10025-2 Article 7.3.1	Table 6
Chemical analysis	EN 10025-2 Article 7.2.2	Table 3	EN 10025-2 Article 7.2.2	Table 3	EN 10025-2 Article 7.2.2	Table 3	EN 10025-2 Article 7.2.2	Table 3
Weldability	EN 10025-2 Article 7.2 Article 7.4.1	Table 3-5	EN 10025-2 Article 7.2 Article 7.4.1	Table 3-5	EN 10025-2 Article 7.2 Article 7.4.1	Table 3-5	EN 10025-2 Article 7.2 Article 7.4.1	Table 3-5
Impact Energy	EN 10025-2 Article 7.3.2	Table 8	EN 10025-2 Article 7.3.2	Table 8	EN 10025-2 Article 7.3.2	Table 8	EN 10025-2 Article 7.3.2	Table 8
Carbon Equivalent value	EN 10025-2	Table 5	EN 10025-2	Table 5	EN 10025-2	Table 5	EN 10025-2	Table 5

Table : Chemical analysis – Product Analysis for product thickness ≤ 16 mm

Steel Quality	Method of Deoxidation	C	Si	Mn	P	S	N	Cu
		Max		Max	Max	Max	Max	Max
		%	%	%	%	%	%	%
S235JR	FN	0.19	0.14 – 0.25	1.50	0.045	0.045	0.014	0.60
S235J0	FN	0.19	0.14 – 0.25	1.50	0.040	0.040	0.014	0.60
S235J2	FF	0.19	0.14 – 0.25	1.50	0.035	0.035		0.60
S275JR	FN	0.24	0.14 – 0.25	1.60	0.045	0.045	0.014	0.60
S275J0	FN	0.21	0.14 – 0.25	1.60	0.040	0.040	0.014	0.60
S275J2	FF	0.21	0.14 – 0.25	1.60	0.035	0.035		0.60
S355JR	FN	0.27	0.14 – 0.25	1.70	0.045	0.045	0.014	0.60
S355J0	FN	0.23	0.14 – 0.25	1.70	0.040	0.040	0.014	0.60
S355J2	FF	0.23	0.14 – 0.25	1.70	0.035	0.035		0.60

Table 2: Mechanical properties

Steel Quality		Minimum Yield Strength ReH MPa (N/mm ²)		Minimum Tensile Strength Rm MPa (N/mm ²)		Minimum Elongation %	Minimum Impact Energy KV (V-notch) Joule		
Quality	Steel Number	Thicknesses mm		Thicknesses mm		Thicknesses mm	Test Temperature		
		≤ 16	> 16 ≤ 40	< 3	≥ 3 ≤ 40		≤ 40	-20 C	0 C
S235JR	1.0038	235	225	360 - 510	360 - 510	26	-	-	27
S235J0	1.0114					26	-	27	-
S235J2	1.0117					24	27	-	-
S275JR	1.0044	275	265	430 - 580	410 - 560	23	-	-	27
S275J0	1.0143					23	-	27	-
S275J2	1.0145					21	27	-	-
S355JR	1.0045	355	345	510 - 680	470 - 630	22	-	-	27
S355J0	1.0553					22	-	27	-
S355J2	1.0577					22	27	-	-

Tablo : Maximum carbon equivalent value based on cast analysis

Steel Quality		Maximum CEV for nominal thicknesses ≤ 30 mm %
Quality	Steel Number	
S235JR	1.0038	0,35
S235J0	1.0114	0,35
S235J2	1.0117	0,35
S275JR	1.0044	0,40
S275J0	1.0143	0,40
S275J2	1.0145	0,40
S355JR	1.0045	0,45
S355J0	1.0553	0,45
S355J2	1.0577	0,45

8. Appropriate Technical Documentation and/or Specific Technical Documentation : NPD

The structural material defined above has the declared performance group. This performance declaration which is prepared according to the Construction Products Regulation (305/2011/EU) is published only under the responsibility of TOSYALI IRON AND STEEL CO.

Quality Control and Assurance Chief

Serkan TOSYALI

 TOSYALI Demir Çelik
Tosyalı Demir Çelik Sanayi A.Ş.
Organize Sanayi Bölgesi Necatî Özalp Cad.
No. : 12 Sarısekişi Yenilerun/HATAY
Tel. : 0326 856 2133 Fax. : 0326 856 2135
Asım Gunduz V.D. : 856 004 3176