



Declaration of Performance

NO.: HSIQA13JUNE_01

1. Name and identification code:

Hot Rolled H Beams, Angles and Channels of Structural Steels,
Types S235/S275/S355/S450 and grades JR/J0/J2/K2

2. Intended use:

To be used in-welded, bolted and riveted structures.

3. Name and manufacturer's address:

HYUNDAI STEEL COMPANY INCHEON WORKS
1, Songhyeon-dong, Dong-gu, Incheon, 401-712, S. KOREA
Tel: +82 32 760 3120
www.hyundai-steel.com

**4. System of assessment and verification of constancy of performance of the product
System 2+**

5. Notified Body:

Assessment and evaluation of factory production control for the system 2+
Factory production control certificate 0035-CPD-060001, issued on 28th March 2011,
As certified by TÜV Rheinland Industrie Service GmbH Am Grauen Stein 51105 Cologne, Germany

The performance of the product identified in point 1 is in conformity with the declared performance in point 6.

This declaration of performance is issued under the sole responsibility of manufacturer indicated in point 3.

Signed for and on behalf of the manufacturer:

K. S. Shim

K. S. Shim
General Manager of Quality Assurance Team
Place of issue : Incheon, S. Korea
Date : June. 24th. 2013

6. Determined performances:

Essential Characteristics	Performance								Harmonised technical specification		
Tolerance on dimensions and Shape	Equal angle		EN 10056-2								
	I and H section		EN 10034								
	Pararell and tapered flange Channel		EN 10279								
Tensile strength	Type and grade	Nominal thickness(mm)									
		3≤t≤100									
	S235JR/J0/J2		360 to 510								
	S275JR/J0/J2		410 to 560								
	S355JR/J0/J2/K2		470 to 630								
S450J0		550 to 720									
Yield strength	Type and grade	Nominal thickness(mm)									
		t≤16	16<t≤40	40<t≤63	63<t≤80						
	S235JR/J0/J2		235	225	215	215					
	S275JR/J0/J2		275	265	255	245					
	S355JR/J0/J2/K2		355	345	335	325					
S450J0		450	430	410	390						
Elongation	Type and grade	Nominal thickness(mm)									
		3≤t≤40	40<t≤63	63<t≤100							
	S235JR/J0		26	25	24						
	S235J2		24	23	22						
	S275JR/J0		23	22	21						
	S275J2		21	20	19						
	S355JR/J0/J2		22	21	20						
	S355K2		20	19	18						
S450J0		17	17	17							
Impact strength	Type and grade	Temperature (°C)	Nominal thickness (t≤150mm)						EN 10025-1:2004		
	S235/275/355JR		20	27							
	S235/275/355/450J0		0	27							
	S235/275/355J2		-20	27							
S355K2		-20	40								
Weldability (CEV)	Type and grade	CEV% max									
		t≤30	30<t≤40	40<t≤150							
	S235JR/J0/J2		0.35	0.35	0.38						
	S275JR/J0/J2		0.40	0.40	0.42						
	S355JR/J0/J2/K2		0.45	0.47	0.47						
S450J0		0.47	0.49	0.49							
Durability (Chemical composition)	Type and grade	C % max		Si %	Mn %	P %	S %	N %	Cu %		
		t≤40	40<t	Max.	Max.	Max.	Max.	Max.	Max.		
	S235JR		0.17	0.20	-	1.40	0.35	0.35	0.012		0.55
	S235J0		0.17	0.17	-	1.40	0.30	0.30	0.012		0.55
	S235J2		0.17	0.17	-	1.40	0.25	0.25	-		0.55
	S275JR		0.21	0.22	-	1.50	0.35	0.35	0.012		0.55
	S275J0		0.18	0.18	-	1.50	0.30	0.30	0.012		0.55
	S275J2		0.18	0.18	-	1.50	0.25	0.25	-		0.55
	S355JR		0.24	0.24	0.55	1.60	0.35	0.35	0.012		0.55
	S355J0		0.20	0.22	0.55	1.60	0.30	0.30	0.012		0.55
	S355J2		0.20	0.22	0.55	1.60	0.25	0.25	-		0.55
	S355K2		0.20	0.22	0.55	1.60	0.25	0.25	-		0.55
S450J0		0.20	0.22	0.55	1.70	0.30	0.30	0.025	0.55		