

Contract No.	
Customer	HYUNDAI CORPORATION
L/C No.	
P/O No.	32201601C111
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM)

# INSPECTION CERTIFICATE



Head Office	63, Jungbong-daero, Dong-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20160201768 - 6
Class Cert. No.	
Date of Issue	2016-02-16

EN 10204(2004) TYPE 3.1

Dimensions & Length	Heat No.	Pieces Weights (kg)	Chemical Composition (%)											Tensile Test			Yield Ratio	Impact Test (V-notch)				Remarks (Impact Specimen Size)		
			C	Si	Mn	P	S	Cu Ni	Mo Cr	Al V	Nb	Sn	CE(1)	Tensile Strength	Yield point	Elongation(2)		AVG	1	2	3			
			x100		x1000		x100		x1000		x100		N/mm <sup>2</sup>		%	( )		°C						
14X8X53 40.00 FT	E 187696	4 3,844	19	15	97	22	9	21	3	2		1	8	42	550	390	25.5	0.71						
14X8X53 40.00 FT	E 187697	14 13,454	18	15	98	22	6	24	2	3		2	9	40	552	392	25.5	0.71						
14X14-1/2X90 40.00 FT	N 031446	12 19,584	18	15	99	27	9	19	2	3		3	16	40	552	396	24.5	0.72						
14X14-1/2X90 40.00 FT	N 031447	8 13,056	18	16	98	31	10	23	3	3		2	19	42	559	398	25.5	0.71						
14X14-1/2X132 40.00 FT	N 031430	8 19,152	17	19	114	28	9	24	2	3		3	15	43	563	398	26.5	0.71						
16X5-1/2X26 40.00 FT	D 132109	10 4,720	17	14	66	24	11	19	2	3		20	9	33	527	398	25.0	0.76						
16X5-1/2X26 40.00 FT	D 132110	104 49,088	16	14	59	30	6	20	2	3		14	12	31	529	400	24.5	0.76						
16X5-1/2X26 40.00 FT	D 132111	116 54,752	16	15	63	24	3	18	1	4		24	10	32	528	403	24.5	0.76						
16X5-1/2X31 40.00 FT	D 132114	35 19,670	15	19	85	28	6	18	2	3		23	9	36	546	412	24.0	0.76						
SUB TOTAL		311 197,320																						

(Note) (1) Ceq: (CE=C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15)

(2) Gauge length : 200 mm

(3) Yield Ratio = YP/TS

**J. C. Ahn**  
General Manager of Q.A Team

WE HEREBY CERTIFY THAT THE MATERIAL HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ABOVE ORDER