

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 - 7
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 <sup>(1)</sup>	Tensile Strength	Yield point	Elongation <sup>(2)</sup>		AVG	1	2	3	
			x100		x1000		x100		x1000		x100		x100		N/mm <sup>2</sup>			%	°C			
16X7X36 40.00 FT	E 187774	14 9,142	13	14	54	27	10	24 7	2 19	3 12	2	12	29	495 497	402 404	26.0 27.0	0.81 0.81					
16X7X36 40.00 FT	E 187776	10 6,530	15	13	52	20	12	22 8	2 16	2 13	2	11	30	502 503	400 401	27.0 27.5	0.80 0.80					
16X7X36 40.00 FT	E 187777	10 6,530	15	15	52	23	7	23 8	2 18	3 13	3	12	30	504 501	404 408	26.5 27.0	0.80 0.81					
16X7X36 40.00 FT	E 187778	1 653	14	14	54	26	9	23 8	2 16	3 12	2	11	29	520 524	441 445	24.5 25.0	0.85 0.85					
16X7X57 40.00 FT	D 132004	3 3,102	22	16	74	29	3	18 7	1 15	4 3	18	7	39	570 568	393 390	23.5 24.5	0.69 0.69					
16X7X57 40.00 FT	E 186692	5 5,170	19	15	98	23	9	23 10	3 13	2 15	3	10	41	546 542	391 388	24.5 25.0	0.72 0.72					
16X7X57 40.00 FT	E 186700	4 4,136	19	14	100	20	10	25 10	2 11	3 16	4	23	41	533 529	384 381	26.0 26.5	0.72 0.72					
16X7X57 40.00 FT	E 187701	2 2,068	18	13	96	28	12	25 9	3 17	6 14	2	11	41	548 544	398 396	25.0 24.0	0.73 0.73					
16X7X57 40.00 FT	E 187743	8 8,272	18	18	95	28	6	22 7	1 15	4 15	1	13	39	551 547	411 410	26.0 26.5	0.75 0.75					
SUB TOTAL		57 45,603																				

(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