

Contract No.	
Customer	DUFERCO
PO No.	32201910C221
L/C No.	
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/CSA G40.21-13 50MM(345MM)

ORIGINAL

INSPECTION CERTIFICATE
EN 10204(2004) TYPE 3.1

HYUNDAI STEEL H(CORE)	
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Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20191106159-1
Class certificate No.	
Issue date	2019-12-04

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition													Tensile Test			Yield Ratio	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)		
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE ₁₀	Tensile Strength	Yield Strength			Elongation ₂₀	V-Notch	°C				
					×100		×1000		×100			×1000			×100	N/mm ²	N/mm ²	%	AVG	1			2	3					
14X14-1/2X109	40.00 FT	N 050769	22	43,494	18	17	94	27	8	27	8	2	14	3	14	1	13	39	563	402	24.0	0.715							
14X14-1/2X90	40.00 FT	N 050774	9	14,688	18	17	93	25	7	27	9	2	11	3	13	1	12	39	558	401	25.0	0.719							
14X14-1/2X90	40.00 FT	N 050775	19	31,008	18	15	93	24	8	26	9	2	11	3	13	2	12	39	556	383	25.5	0.689							
14X14-1/2X90	40.00 FT	N 050776	8	13,056	18	16	94	24	7	27	11	2	12	3	13	1	14	39	561	397	24.5	0.708							
14X14-1/2X90	40.00 FT	N 050777	19	31,008	18	15	93	32	6	26	10	2	11	4	14	3	21	39	560	374	26.0	0.668							
14X14-1/2X90	40.00 FT	N 050778	14	22,848	18	15	98	23	6	30	10	2	14	3	14	5	17	40	558	372	26.0	0.667							
14X14-1/2X90	40.00 FT	N 050779	5	8,160	19	16	95	21	7	24	10	3	13	4	15	3	13	41	558	382	27.0	0.685							
14X14-1/2X90	40.00 FT	N 050780	6	9,792	18	15	93	24	9	25	9	2	14	3	14	2	12	39	543	404	24.5	0.745							
14X14-1/2X120	40.00 FT	N 050765	7	15,239	18	16	95	26	9	22	7	2	11	2	14	2	11	39	553	384	26.5	0.695							
14X14-1/2X120	40.00 FT	N 050766	13	28,301	18	16	100	30	7	21	8	3	10	3	14	2	13	39	549	377	27.0	0.687							
SUB TOTAL			122	217,594															569	382	25.5	0.672							

===== NEXT =====

(1) Ceq: (CE=C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15) (2) Gauge length : 200 mm (3) Y.R = Y.S/T.S	Note
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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.

J. E. Han
General Manager of QA Team