

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

ORIGINAL

INSPECTION CERTIFICATE
EN 10204(2004) TYPE 3.1



Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20191106159-2
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 _T	Tensile Strength	Yield Strength			Elongation (%)	V-Notch	°C				
					×100		×1000		×100			×1000			×100	N/mm ²	%	%	AVG	1			2	3					
14X14-1/2X132	40.00 FT	N 050715	1	2,394	18	19	112	23	8	26	10	2	11	2	14	1	11	42	575	410	25.0	0.714							
14X14-1/2X132	40.00 FT	N 050787	3	7,182	17	15	110	22	10	24	9	2	8	2	14	1	10	40	558	387	26.5	0.694							
14X14-1/2X132	40.00 FT	N 050788	9	21,546	17	16	110	25	11	26	10	2	20	3	14	1	11	42	576	390	25.5	0.678							
14X14-1/2X132	40.00 FT	N 050789	5	11,970	18	15	115	24	12	29	10	2	17	2	15	1	13	44	577	400	26.0	0.694							
21X12-1/4X101	40.00 FT	N 050822	6	10,992	18	18	93	26	8	25	11	2	8	3	14	1	10	38	552	384	26.0	0.696							
21X12-1/4X101	40.00 FT	N 050823	12	21,984	18	16	99	25	6	31	10	2	13	3	15	4	13	41	548	386	28.0	0.705							
21X12-1/4X111	40.00 FT	N 050405	14	28,196	18	15	93	21	8	28	9	2	12	2	13	1	13	39	547	381	25.0	0.697							
21X12-1/4X111	40.00 FT	N 050825	5	10,070	19	14	94	27	7	26	9	2	16	3	14	1	14	41	558	388	26.0	0.696							
21X12-1/4X111	40.00 FT	N 050826	3	6,042	18	16	93	25	7	27	9	2	13	3	13	2	12	39	547	380	28.5	0.695							
21X12-1/4X122	40.00 FT	N 049841	1	2,213	18	16	96	24	6	28	10	2	14	3	14	2	11	40	544	374	29.0	0.688							
SUB TOTAL			59	122,589															549	369	27.0	0.673							

===== 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. K. Han

General Manager of QA Team