



Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201412C341
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/ CSA 350W

MILL TEST CERTIFICATE

EN 10204(2004) TYPE 3.1

		
Head Office	63, Jungbong-daero, Dong-gu, Incheon, 401-712, S. Korea	
Certificate No.	IH20150105198 - 16	
Class Cert. No.		
Date of Issue	2015-02-02	

Dimensions & Length	Heat No.	Pieces Weights (kg)	Chemical Composition (%)											Tensile Test			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⁾	Yield Ratio	AVG	1	2		3
			x100			x1000		x100		x1000			x100	N/mm ²		%	C					
21X6-1/2X50 40.00 FT	E 178936	6 5,442	17	15	66	26	12	30 9	12	5 14	3	14	34	540 538	418 412	22.0 25.0	0.77 0.77					
21X6-1/2X50 40.00 FT	E 178939	1 907	17	15	54	21	6	33 10	2 9	6 13	3	14	31	544 542	439 435	22.5 22.0	0.81 0.80					
21X6-1/2X50 40.00 FT	E 179601	12 10,884	18	13	66	21	7	27 10	2 13	5 16	5	11	35	532 525	399 398	24.0 24.5	0.75 0.76					
21X6-1/2X50 40.00 FT	E 179602	9 8,163	18	13	69	19	8	37 9	2 13	7 13	5	14	36	541 535	406 403	24.5 25.0	0.75 0.75					
24X9X84 40.00 FT	N 026679	7 10,668	18	15	97	22	8	27 8	3 19	5 14	6	10	41	557 553	421 418	24.0 24.5	0.76 0.76					
24X9X84 40.00 FT	N 026680	10 15,240	20	17	97	22	8	24 10	3 16	6 15	5	10	43	542 538	407 402	27.0 27.0	0.75 0.75					
24X9X84 40.00 FT	N 026681	1 1,524	19	16	97	25	12	27 9	3 15	5 15	6	10	41	557 552	420 416	26.0 26.5	0.75 0.75					
24X9X94 40.00 FT	N 026392	1 1,706	19	17	97	18	8	27 9	2 15	6 24	4	14	41	562 560	420 417	25.5 26.0	0.75 0.74					
24X9X94 40.00 FT	N 026394	1 1,706	19	17	99	19	6	24 8	2 11	6 24	3	13	41	573 562	420 410	25.0 25.5	0.73 0.73					
SUB TOTAL		48 56,240																				

(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

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

General Manager of Q.A Team