



Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201411C321
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/ CSA 350W

MILL TEST CERTIFICATE

		
Head Office	63, Jungbong-daero, Dong-gu, Incheon, 401-712, S. Korea	
Certificate No.	IH20141202930 - 2	
Class Cert. No.		
Date of Issue	2014-12-16	

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	
			×100		×1000		×100		×1000			×100	N/mm ²		%	()	C					
16X7X50 40.00 FT	D 124196	8 7,256	19	16	60	26	4	31 10	2 17	6 2	16	15	36	530 526	377 376	27.0 26.0	0.71 0.72					ORIGINAL
16X7X57 40.00 FT	D 124151	18 18,612	16	15	59	24	3	32 11	2 19	6 1	15	14	33	503 503	372 375	26.0 25.5	0.74 0.75					
16X7X57 40.00 FT	D 124152	12 12,408	17	13	59	19	3	32 9	2 12	5 1	16	17	32	509 505	378 374	25.0 25.5	0.74 0.74					
21X8-1/4X73 40.00 FT	E 178968	16 21,184	17	16	97	22	7	26 10	2 14	4 22	2	13	39	556 553	425 421	26.0 26.5	0.76 0.76					
21X8-1/4X83 40.00 FT	E 178963	3 4,518	18	14	95	22	12	30 9	1 9	5 24	2	11	39	542 540	397 393	26.5 27.0	0.73 0.73					
21X8-1/4X83 40.00 FT	E 178964	1 1,506	19	15	102	28	13	31 10	1 12	5 23	2	17	42	546 543	408 405	26.0 26.5	0.75 0.75					
21X8-1/4X93 40.00 FT	E 178963	2 3,374	18	14	95	22	12	30 9	1 9	5 24	2	11	39	539 536	412 410	25.5 26.0	0.76 0.76					
21X12-1/4X101 40.00 FT	N 026655	12 21,984	20	15	97	18	9	23 8	2 12	6 15	5	11	41	565 561	399 396	24.0 25.0	0.71 0.71					
21X12-1/4X101 40.00 FT	N 026656	3 5,496	18	15	97	18	10	17 7	3 11	6 14	6	9	39	554 549	398 395	25.5 25.0	0.72 0.72					
SUB TOTAL		75 96,338																				

(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

B. H. Lee
B. H. LEE / GENERAL MANAGER
OVERSEAS SALES TEAM 1