



Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201506C112
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.	IH20150700675 - 2	
Class Cert. No.		
Date of Issue	2015-07-03	

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	
			×100		×1000		×100		×1000			×100	N/mm <sup>2</sup>		%	(°)		°C				
8X5-1/4X21 40.00 FT	D 128268	32 12,192	17	16	58	24	8	21 9	2 14	3 6	15	10	32	535	407	24.0	0.76					
12X4X14 40.00 FT	D 128042	96 24,384	16	15	59	20	10	32 10	2 17	3 3	16	15	32	516	395	24.0	0.77					
12X4X14 40.00 FT	D 128043	36 9,144	16	15	59	28	9	30 9	2 22	4 3	15	16	33	522	409	25.0	0.78					
12X4X19 40.00 FT	D 128044	100 34,500	16	13	58	20	10	30 9	2 18	2 2	16	12	32	519	387	24.5	0.75					
12X4X19 40.00 FT	D 128045	90 31,050	16	14	58	24	10	32 10	2 18	3 4	18	12	33	515	385	25.0	0.75					
12X6-1/2X35 40.00 FT	D 127649	3 1,905	16	14	60	24	9	25 10	3 28	3 3	17	14	35	514	374	25.0	0.73					
12X6-1/2X35 40.00 FT	D 128251	12 7,620	17	13	60	20	10	24 9	1 13	2 6	18	14	32	520	390	24.0	0.75					
12X6-1/2X35 40.00 FT	D 128255	22 13,970	16	13	58	26	8	23 9	1 15	2 5	17	9	31	519	376	22.5	0.72					
12X6-1/2X35 40.00 FT	D 128256	66 41,910	17	14	59	27	12	24 10	2 18	2 6	16	12	33	522	382	23.5	0.73					
SUB TOTAL		457 176,675																				

(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

