

MILL TEST CERTIFICATES



Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201310CM01
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/ CSA 350W

Head Office	1, Songhyeon-dong, Dong-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20140103437 - 1
Class Cert. No.	
Date of Issue	2014-01-23

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	Mo	Al	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				
12X4X22 40.00 FT	D 118869	40 15,960	17	16	59	28	7	26	2	5	17	22	32	527	395	23.0	0.75					
12X4X22 40.00 FT	D 118871	40 15,960	17	15	58	28	7	25	2	5	16	15	32	530	395	25.0	0.74					
12X4X22 40.00 FT	D 118872	20 7,980	16	15	60	26	6	21	2	4	16	23	31	526	390	24.5	0.74					ORIGINAL
18X7-1/2X71 40.00 FT	E 171859	17 21,913	17	16	74	29	12	26	2	3	7	12	34	543	381	23.0	0.70					
24X7X55 40.00 FT	E 171921	13 12,974	18	18	77	20	20	24	2	4	7	12	36	541	406	24.0	0.75					
24X7X55 40.00 FT	E 171922	7 6,986	17	17	75	28	19	20	2	4	7	11	35	545	407	24.0	0.75					
TOTAL		137 81,773												===== E N D =====								

(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

K.S. Shim
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