

MILL TEST CERTIFICATE



Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201304C002
Commodity	H-BEAM
Specification	ASTM A36/A572 G50/A992/ CSA 350W

Head Office	1, Songhyeon-dong, Dang-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20130601771 - 1
Class Cert. No.	
Date of Issue	2013-06-11

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		%		
18X11X97 40.00 FT	N 019851	8 14,080	18	13	66	29	17	23	2	4	14	11	34	541.3	378.5	22.0	0.70					
18X11X97 40.00 FT	N 019852	17 29,920	20	16	67	25	18	20	2	4	17	10	36	526.6	382.5	25.0	0.73					
18X11X97 40.00 FT	N 019853	15 26,400	18	15	64	24	15	22	2	3	16	10	33	523.7	402.1	25.5	0.77					
18X11X97 40.00 FT	N 019854	7 12,320	19	16	65	30	20	24	3	3	15	11	37	528.6	378.5	24.0	0.72					
18X11X97 40.00 FT	N 019855	13 22,880	18	17	65	30	17	23	2	3	15	11	34	528.6	366.8	23.0	0.69					
18X11X106 40.00 FT	N 019838	8 15,384	19	14	65	33	19	20	2	3	16	9	35	509.9	368.7	25.0	0.72					
18X11X106 40.00 FT	N 019839	28 53,844	18	18	64	15	14	17	2	4	18	10	33	511.9	381.5	25.0	0.74					
18X11X106 40.00 FT	N 019840	21 40,383	19	19	66	19	15	20	2	4	18	10	34	517.8	376.6	24.0	0.73					
18X11X119 40.00 FT	N 019843	3 6,477	17	17	101	29	14	24	1	4	16	10	39	543.3	408.9	25.0	0.75					
SUB TOTAL		120 221,688																				

(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

HMS 1 102(A)-3a ※ 현대제철은 검사증명서를 사본으로 제출하지 않습니다. 사본일 경우, 현대제철 각 영업소로 확인하시기 바랍니다. 문의)02-772-2125 2010044 A4(210x297)

MILL TEST CERTIFICATE



Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201304C002
Commodity	H-BEAM
Specification	ASTM A36/A572 G50/A992/ CSA 350W

Head Office	1, Songhyeon-dong, Dong-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20130601771 - 2
Class Cert. No.	
Date of Issue	2013-06-11

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		x100		N/mm ²		%		()		C	
18X11X119 40.00 FT	N 019844	9 19,431	19	15	101	32	15	27	2	5	15	11	42	548.2	418.7	23.5	0.76					
18X11X119 40.00 FT	N 019845	26 56,134	20	15	103	23	18	22	1	4	17	11	41	546.2	415.8	24.0	0.76					
18X11X119 40.00 FT	N 019846	10 21,590	20	15	103	32	17	24	1	4	17	12	42	538.4	411.9	25.5	0.76					
TOTAL		165 318,843																				

1953

(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

HMS 1102(A)-3a ※ 현대제철은 검사증명서를 사본으로 제출하지 않습니다. 사본일 경우, 현대제철 각 영업소로 확인하시기 바랍니다. 문의)02-772-2125

2010044 A4(210X297)