

MILL TEST CERTIFICATE



Contract No.	
Customer	GERDAU GTL MEXICO SA DE CV
L/C No.	DPCMXH403842
P/O No.	32201410C221
Commodity	HOT ROLLED WIDE FLANGE BEAMS
Specification	ASTM A572 G50/A992/CSA 350W

Head Office	63, Jungbong-daero, Dong-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20141103199 - 10
Class Cert. No.	
Date of Issue	2014-11-17

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		
18X11X76 40.00 FT	N 025795	13 17,927	18	18	65	21	12	21 6	2 10	4 24	4	10	34	550 547	433 430	24.0 23.5	0.79 0.79					
18X11X76 40.00 FT	N 025798	28 38,612	17	14	65	27	11	19 7	2 14	3 26	4	11	33	536 539	406 410	25.5 25.0	0.76 0.76					
18X11X76 40.00 FT	N 025805	20 27,580	18	18	68	22	9	23 7	2 16	4 26	4	12	35	543 538	411 409	25.0 25.5	0.76 0.76					
18X11X76 40.00 FT	N 025822	5 6,895	18	15	65	26	13	22 7	2 14	4 27	6	11	35	537 532	411 407	24.5 25.0	0.76 0.76					
18X11X76 40.00 FT	N 025951	6 8,274	18	20	66	24	9	24 7	2 17	6 14	5	10	35	538 532	397 392	25.5 26.0	0.74 0.74					
18X11X76 40.00 FT	N 025963	4 5,516	21	19	66	22	7	22 8	2 11	6 13	5	9	37	549 542	390 384	25.0 26.0	0.71 0.71					
18X11X76 40.00 FT	N 025967	24 33,096	19	16	66	27	10	26 8	2 12	5 12	5	11	35	538 532	402 397	26.0 26.5	0.75 0.75					
18X11X76 40.00 FT	N 025986	13 17,927	20	15	67	31	8	28 10	3 16	6 12	6	12	38	541 537	414 410	25.5 26.0	0.76 0.76					
18X11X76 40.00 FT	N 025989	19 26,201	20	18	65	31	8	26 9	2 16	7 14	6	14	37	542 535	399 392	25.5 26.0	0.74 0.73					
SUB TOTAL		132 182,028																				

(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