

# MILL TEST CERTIFICATE



Contract No.	
Customer	PLESA
L/C No.	LC-103176
P/O No.	32201401CD14
Commodity	H-BEAM
Specification	ASTM A572 G60/A992/ CSA 350W

Head Office	1, Songhyeon-dong, Dong-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20140301683 - 2
Class Cert. No.	
Date of Issue	2014-03-10

Dimensions & Length	Heat No.	Places 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 <sup>(1)</sup>	Tensile Strength	Yield point	Elongation <sup>(2)</sup>	Yield Ratio	AVG	1	2		3			
			×100		×1000		×100		×1000			×100	N/mm <sup>2</sup>		%		C								
24X12-3/4X104 40.00 FT	N 022924	2 3,774	19	15	75	30	19	22	2	3	7	14	22		11	37	548	418	25.5	0.76					
24X12-3/4X104 40.00 FT	N 022933	1 1,887	18	17	78	25	17	17	2	4	6	13	25		13	36	533	412	25.0	0.77					
24X12-3/4X104 40.00 FT	N 022938	1 1,887	16	16	107	28	17	19	1	4	8	11	33		17	39	546	417	26.0	0.76					
24X12-3/4X104 40.00 FT	N 023204	9 16,983	19	16	79	27	18	19	3	5	9	14	26		11	38	530	407	25.0	0.77					
24X12-3/4X104 40.00 FT	N 023205	22 41,514	18	15	76	20	19	17	2	4	8	11	23		7	35	528	403	26.0	0.76					
24X12-3/4X104 40.00 FT	N 023404	8 15,096	19	17	70	18	13	23	2	5	7	10	22		9	36	532	380	25.0	0.71					
24X12-3/4X131 40.00 FT	N 023187	11 26,136	18	22	76	24	13	17	2	3	6	14	22		8	36	570	409	23.0	0.72					
24X12-3/4X131 40.00 FT	N 023189	1 2,376	19	16	104	21	10	10	1	3	6	14	24		6	41	536	386	25.0	0.72					
24X12-3/4X131 40.00 FT	N 023200	6 14,256	18	14	75	23	18	20	2	5	7	9	24		9	35	554	410	23.0	0.74					
SUB TOTAL		61 123,909																							

ORIGINAL

(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