

ORIGINAL

INSPECTION CERTIFICATE
EN 10204(2004) TYPE 3.1



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Contract No.	
Customer	DUFERCO
PO No.	32201910C211
L/C No.	
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/CSA G40.21-13 50MM(345MM)

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20191106158-1
Class certificate No.	
Issue date	2019-12-04

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																Tensile Test			Yield Ratio(%)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE _{Ti}	Tensile Strength	Yield Strength	Elongation (%)	V-Notch				°C				
					×100		×1000		×100			×1000			×100	N/mm ²		%	AVG	1	2	3								
27X10X84	40.00 FT	N 049793	1	1,524	19	16	95	23	11	32	9	3	16	2	13	2	11	42	550	406	24.5	0.739								
27X10X84	40.00 FT	N 050979	9	13,716	19	15	95	23	9	26	10	3	15	3	18	3	17	41	564	408	26.0	0.724								
27X10X84	40.00 FT	N 050980	9	13,716	18	16	95	24	6	24	10	2	13	3	13	2	10	39	556	409	26.5	0.736								
27X10X84	40.00 FT	N 050983	3	4,572	18	16	97	24	5	31	11	2	15	4	15	2	14	41	555	417	26.0	0.752								
27X10X84	40.00 FT	N 050984	9	13,716	18	16	93	25	6	30	12	3	19	3	13	1	13	41	563	410	26.0	0.729								
27X10X84	40.00 FT	N 050985	3	4,572	18	15	95	22	8	25	9	2	14	2	14	1	12	40	551	423	27.0	0.768								
27X10X84	40.00 FT	N 050986	15	22,860	18	16	98	25	6	28	10	3	13	3	15	2	10	40	565	410	27.0	0.726								
																			554	388	25.0	0.701								
																			564	404	28.0	0.728								
																			546	400	28.0	0.733								
																			565	414	27.0	0.733								
																			568	422	27.0	0.743								
																			562	402	25.5	0.716								
																			548	398	27.5	0.727								
TOTAL			49	74,676																										

===== 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) Y.R = Y.S/T.S

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.

J. K. Han

General Manager of Q.A Team