CERTIFICATE NO(성적서 번호) : E201037 Page 1 of 1

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CONTRACT(P/O) NO.(계약번호) : 28991

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COMMODITY(제품명) : E.R.W. CARBON STEEL PIPE

SPECIFICATION(제품규격) : ASTM A53 B

검사증명서

MILL TEST CERTIFICATE

EN 10204 TYPE 3.1 - 2004

CUSTOMER(고객사): 현대종합상사(주)

HYUNDAI STEEL

출신공장 : 울산광역시 북구 염포로 709
709, Yeompo-ro, Buk-gu, Ulsan, Korea

No.	TYPE OF PIPE END ※1	SIZE OUT-DIA×THICK×LENGTH (외경×두께×길이)	PCS (본)	WEIGHT (KG)	TOTAL LENGTH (M)	HEAT No.	Hydrostatic Test Pressure PSI	Time SEC	Spec. Min. / Max.	※2	Tensile Properties(Gage Length : 2 inch) Tensile Strength Base MPa	Tensile Strength Weld MPa	Yield Strength MPa	Y/R Ratio %	EL %	Hardness Test ※3 Max. Value	※2 ※3	CVN Impact Test Specimen size	CVN Impact Test(℃) Absorbed Energy(Joule) 1	2	3	avg	Shear Area (%)	D.W.T Test(℃) Shear Area(%) 1	2	avg
	※1						PSI	SEC	Min. / Max.		415	415	240													
1	EB BE	14" X 0.500 " X 6,150 M	2	1,321	12.3	S873551	1500	5	T	T	421	491	292		47			Chemi : In the case of 10×10								
2	EB BE	14" X 0.500 " X 6,150 M	28	18,493	172.2	S874724	1500	5	T	T	448	493	321		45											
		TOTAL	30	19,814	184.5																					

No.	Heat No.	Spec.	※4	Chemical Composition(%) C 2	Si 2	Mn ※7 2	P 3	S 3	Cu 2	Ni 2	Cr 2	Mo 3	V 3	CM3 ※10 3	2 : ×100 3 : ×1000 4 : ×10000	Zn-Coating Test Zn Coating	Copper Sulfate Test Time	Copper Sulfate Test Result	HC-Test Collapse Pressure psi	HIC Test CLR %	CTR %	CSR %	S.S.C.C Test
		Min.																					
		Max.		30		120	50	45	40	40	40	150	80	1000									
1	S873551		H	19	2	85	9	2															
			P	18	2	84	6	TR	1	1	2	18	2	66									
			P	19	1	84	6	TR	1	1	2	19	2	66									
2	S874724		H	18	2	80	10	2															
			P	17	2	79	7	TR	1	1	2	18	2	58									
			P	17	2	79	6	TR	1	1	2	18	2	58									

Remark

※1) Type of pipe end(관종)
EB:ERW Black BE:Bevel End
※2) L: Longitudinal, T: Transverse
※3) B: Base, W: Weld Line, H: Heat Affected Zone
※4) H: Heat(Ladle) Analysis, P: Product Analysis
※7) For each reduction of 0.01% below the specified C max.
an increase of 0.06% Mn above the specified max.
will be permitted up to a max. of 1.65%
※10) CM3=Cu+Ni+Cr+Mo+V
※ SPEC YEAR - ASTM A53(2012ED1)

Heat Treatment	Non-Destructive Test (U.T)	Flattening / Bending Test	Visual & Dimension
GOOD	GOOD	GOOD	GOOD

본 제품은 관련 규격에 합격되었음을 보증합니다.
This material has been manufactured, sampled, tested and inspected in accordance with the specification and has been found to meet the requirements.
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SURVEYOR

H.K. CHOI

QA Manager

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