CERTIFICATE NO(성적서 번호) : D203119 Page 1 of 1
DATE OF ISSUE(발행일자) : 2019-02-25
CONTRACT(P/O) NO.(계약번호) : 27795
PR NO.(주문서번호) : P181200191
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): PLESA ANAHUAC Y CIAS., S.A. DE C.V.

HYUNDAI STEEL
출산공장 : 울산광역시 북구 염포로 706
706, 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)	Hydrostatic Test Time (SEC)	Spec. Min.	Spec. Max.	※2	Tensile Properties(Gage Length : 2 inch) Tensile Strength Base (MPa)	Tensile Strength Weld (MPa)	Yield Strength (MPa)	Y/R Rate (%)	E.L (%)	Hardness Test ※3	Hardness Test & CVN Impact Test ※2 ※3	D.W.T Test(℃) Shear Area(%)
1	EB BE	12" X 0.500 " X 6.150 M	37	22,170	227.55	G83817	1650	5		T		450	490	391		44			
		TOTAL	37	22,170	227.55														

Hardness Test ※3: Max. Value
Hardness Test & CVN Impact Test ※2 ※3: CVN Impact Test(℃) Absorbed Energy(Joule) 1 / 2 / 3 / avg; Shear Area (%); Specimen size; Criteria : in the case of 10×10
D.W.T Test(℃) Shear Area(%): 1 / 2 / avg

No.	Heat No.	Spec.		Chemical Composition(%) C	Si	Mn ※7	P	S	Cu	Ni	Cr	Mo	V	CM3 ※10	2 :×100 3 :×1000 4 :×10000
		※4		2	2	2	3	3	2	2	2	3	3	3	
		Min.													
		Max.		30		120	50	45	40	40	40	150	80	1000	
1	G83817		H	9	19	93	13	2							
			P	8	17	92	15	3	1	2	2	3	1	51	
			P	8	16	92	15	3	1	1	2	3	1	50	

Zn-Coating Test: Zn Coating	Copper Sulfate Test: Time	Copper Sulfate Test: Result	HC-Test Collapse Pressure (psi)	H.I.C Test: CLR (%)	CTR (%)	CSR (%)	S.S.C.C Test

Heat Treatment	Nor-Destructive Test (U.T)	Flattening / Bending Test	Visual & Dimension
GOOD	GOOD	GOOD	GOOD

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(2018ED)

본 제품은 관련 규격에 합격되었음을 보증합니다.
WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN ACCEPTED IN ACCORDANCE WITH THE PRESCRIBED SPECIFICATION AND ORDER.
* 본 검사증명서에 명기된 규격용도의 사용시 안전상 문제가 발생할 수 있으며, 검사증명서 위.변조시 사문서 위조로 불이익을 당하실 수 있습니다.

SURVEYOR

H.K. CHOI
QA Manager

* 본 검사증명서는 원본인 전자문서(전자서명 정보 포함)로부터 출력된 사본입니다. 전자문서의 내용은 현대제철 고객포탈에서 확인하실 수 있습니다.(http://sm.hyundai-steel.com/cs/cm/login.jsp)
* This Mill Test Certificate is a copy that has been printed from original electronic document(with digital signing).
You are able to check an original electronic document at hyundaisteel's customer portal.(http://sm.hyundai-steel.com/cs/cm/login.jsp) * QRcode scanner App : 'QReal'