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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): PLESA ANAHUAC Y CIAS., S.A. DE C.V.

HYUNDAI STEEL
울산공장 : 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 (%)	EL (%)	Hardness Test ※3	Hardness Test Max. Value	Hardness Test & CVN Impact Test ※2 ※3	CVN Impact Test('C) Specimen size	CVN Impact Test('C) Absorbed Energy(Joule) 1	2	3	avg	Shear Area (%)	D.W.T Test('C) Shear Area(%) 1	2	avg
							PSI	SEC	Min.	Max.		MPa	MPa	MPa	%	%												
									415			415		240		27				Criteria : In the case of 10×10								
1	EB BE	12" X 0.312 " X 6.150 M	60	22,764	369	P99029	1030	5			T	457	468	353		40												
		TOTAL	60	22,764	369																							

No.	Heat No.	Spec.	※4	Chemical Composition(%) C	Si	Mn ※7	P	S	Cu	Ni	Cr	Mo	V	CM3 ※10	Zn-Coating Test Zn Coating	Cooper Sulfate Tes: Time	Cooper Sulfate Tes: Result	HC-Test Collapse Pressure	H.I.C Test CLR	CTR	CSR	S.S.C.C Test
				2	2	2	3	3	2	2	2	3	3	3				psi	%	%	%	
		Min.																				
		Max.		30		120	50	45	40	40	40	150	80	1000								
1	P99029		H	6	1	74	11	5														
			P	4	1	74	12	6	1	1	3	4	2	56								
			P	4	1	74	12	7	1	1	3	4	2	56								

2 : ×100 3 : ×1000 4 : ×10000

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)

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

본 제품은 관련 규격에 합격되었음을 보증합니다.
WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN ACCEPTED IN ACCORDANCE WITH THE PRESCRIBED SPECIFICATION AND ORDER.
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SURVEYOR

H.K. CHOI
QA Manager

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