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CONTRACT(P/O) NO.(계약번호) : 27795
PR NO.(주문서번호) : F181200191
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×T-HICK×LENGTH (외경×두께×길이)	PCS (조)	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 Max. Value	Hardness Test & CVN Impact Test ※2 ※3	CVN Impact Test(°C) Specimen size	Absorbed Energy(Joule) 1	2	3	avg	Shear Area (%)	D.W.T Test(°C) Shear Area(%) 1	2	avg
												415	415	240						Criteria : In the case of 10×10							
1	EB BE	12" X 0.312 " X 6.150 M	60	22,764	369	P84229	1030	5			T	466	478	394		39											
2	EB BE	12" X 0.312 " X 6.150 M	117	44,388	719.55	P99025	1030	5			T	465	452	373		40											
3	EB BE	12" X 0.312 " X 6.150 M	58	22,005	356.7	P99029	1030	5			T	457	468	353		40											
		TOTAL	235	89,157	1,445.25																						

No.	Heat No.	Spec.	※4	Chemical Composition(%) C	Si	Mn ※7	P	S	Cu	Ni	Cr	Mo	V	CM3 ※10	2:×100 3:×1000 4:×10000	Zn-Coating Test Zn Coating	Copper Sulfate Test Time	Copper Sulfate Test Result	HC-Test Collapse Pressure	H.I.C Test CLR	CTR	CSR	S.S.C.C Test
		Min.																					
		Max.		30		120	50	45	40	40	40	150	80	1000					psi	%	%	%	
1	P84229		H	6	1	78	11	4															
			P	6	1	73	13	5	1	1	3	2	1	50									
			P	5	1	74	12	5	1	1	3	2	1	50									
2	P99025		H	6	1	76	14	7															
			P	4	1	74	13	7	1	1	3	3	2	54									
			P	4	1	74	12	7	1	1	3	3	1	54									
3	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									

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

SURVEYOR

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WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN ACCEPTED IN ACCORDANCE WITH THE PRESCRIBED SPECIFICATION AND ORDER.
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H.K.CHOI
QA Manager

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