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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×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 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
									415	240																	
																				Criteria : In the case of 10×10							
1	EB BE	14" X 0.250 " X 6.150 M	74	24,869	455.1	SB40418	750	5			T	442	513	282		45											
2	EB BE	14" X 0.250 " X 6.150 M	67	22,536	412.05	SP16109	750	5			T	520	529	365		38											
3	EB BE	14" X 0.250 " X 6.150 M	140	47,088	861	SP17964	750	5			T	532	532	377		38											
		TOTAL	281	94,513	1,728.15																						

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.																	psi	%	%	%	
		Max.		30		120	50	45	40	40	40	150	80	1000									
1	SB40418		H	17	2	47	12	4															
			P	17	1	46	10	4	1	1	1	TR	1	34									
			P	17	1	47	11	4	1	1	2	1	1	34									
2	SP16109		H	7	21	99	11	2															
			P	7	19	97	10	3	1	1	2	TR	2	40									
			P	7	20	98	10	3	1	1	2	1	2	43									
3	SP17964		H	7	20	98	10	1															
			P	8	18	95	10	3	1	1	2	2	2	40									
			P	8	18	96	10	2	1	1	2	2	2	41									

Remark
※1) Type of pipe end(관종)
EB:ERW Black BE:Bavel 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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