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 COMMODITY(재품명) E.R.W. CARBON STEEL PIPE
 SPECIFICATION(재품규격) ASTM A53 B

검사증명서

MILL TEST CERTIFICATE

EN 10204 TYPE 3.1 - 2004

CUSTOMER(고객사): 현대중합상사(주)



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No.	TYPE OF PIPE END	SIZE OUT-DIA*THICK*LENGTH (외경*두께*길이)	PCS (단)	WEIGHT (KG)	TOTAL LENGTH	HEAT No.	Hydrostatic Test		Tensile Properties(Gage Length : 2 inch)					Hardness Test		CWI Impact Test				DWT Test (°C)			
							Pressure	Time	Tensile Strength		Yield Strength	Y/R Rate	EL	Max. Value	CWI Impact Test (°C)			DWT Test (°C)					
									Base	Weld					Absorbed Energy(Joules)			Shear Area(%)					
#1							PSI	SEC	MPa	MPa	MPa	%	%	#2	#3	1	2	3	AVG	1	2	AVG	
1	EB BE	18" X 0.250" X 6.150 M	46	19,973	282.9	S874344	580	5	415	415	240												
2	EB BE	18" X 0.250" X 6.150 M	11	4,776	67.65	SP54122	580	5	415	415	240												
3	EB BE	18" X 0.250" X 6.150 M	8	3,474	49.2	SQ00925	580	5	415	415	240												
TOTAL			65	28,223	399.75																		

No.	Heat No.	Spec. #4	Chemical Composition(%)										Zn-Coating Test		H-C Test	H/C Test			S.E.C. Test	Remark			
			C	Si	Mn	P	S	Cr	Ni	Mo	V	GR3	Zn Coating	Copper Sulfide Test	COLP	CLR	CSR						
			2	2	2	3	3	2	2	2	3	3	3	Time	Result	psi	%	%			%		
1	S874344	H	18	1	44	12	3																* (1) Type of pipe end(외경) EB:ERW BEck 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 0.05% Mn above the specified max. will be permitted up to a max. of 1.55% * (10) CR3=Cr/Ni+Cr/Mo+V * SPEC YEAR - ASTM A53(2018ED)
		P	18	1	47	6	3																
2	SP54122	H	17	1	45	12	4																
		P	18	1	42	6	4	2	1	2	19	1											
3	SQ00925	H	17	1	49	12	3																
		P	18	1	43	6	4	2	1	2	19	1											
		P	16	1	47	17	11	TR	1	2	25	1											
		P	16	1	49	18	11	TR	1	2	26	1											

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

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 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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H. K. CHOI

QA Manager

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