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 COMMODITY(제품명) : E.R.W CARBON STEEL PIPE  
 SPECIFICATION(규격) : ASTM A53 B

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## 검사증명서

### MILL TEST CERTIFICATE

EN 10204 TYPE 3.1 - 2004

CUSTOMER(고객사):

현대중합상사(주)



출신공장 : 울산광역시 북구 영포로 706  
 706, Yeosampo-ro, Bu-gu, Ulsan, Korea



No.	TYPE OF PIPE END	SIZE OUT-DIA×THICK×LENGTH (외경×두께×길이)	PCS (개)	WEIGHT (KG)	TOTAL LENGTH (M)	HEAT No.	Hydrostatic Test		Spec	Tensile Properties (Gage Length: 2 inch)	Hardness Test		CAN Impact Test				D.W.T Test (°C)			
							Pressure	Time			Tensile Strength Base	Weld Strength	Yield Strength	Y/R Ratio	E.L.	Max. Value	CAN Impact Test (°C)			D.W.T Test (°C)
							PSI	SEC	Min./Max	MPa	MPa	MPa	%	%	Absorbed Energy(Joules)			Shear Area(%)		
1	EB BE	14" X 0.312" X 6.150 M	3	1,253	16.45	PT424	940	5	T	496	465	364		34						
2	EB BE	14" X 0.312" X 6.150 M	8	3,341	46.2	S375766	940	5	T	458	463	294		41						
3	EB BE	14" X 0.312" X 6.150 M	109	45,517	670.35	SP54125	940	5	T	452	458	280		42						
TOTAL			120	50,111	738															

No.	Heat No.	Spec	Chemical Composition(%)										Zn-Coating Test		H-C-Test		HIC Test			S.S.C Test	Remarks			
			C	Si	Mn	P	S	Cu	NI	Cr	Mo	V	CA10 #10	Zn Coating	Copper Sulfate Test	HC-Test Collapse Pressure	CLR	CTR	CSR					
			2	2	2	3	3	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	
1	PT424	H	17	1	80	9	6																	※1) Type of pipe end(종) : EB/ERW Black BE/Bowl End ※2) L: Longitudinal, T: Transverse ※3) B: Base, W: Weld Line, H: Heat Affected Zone ※4) H: Heat(Load) 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 1.65% ※10) CMB=Cu+Ni+Cr+Mo+V ※ SPEC YEAR - ASTM A53(2018ED)
		P	16	1	81	13	11	TR	1	1	26	1	43											
2	S375766	H	18	1	46	10	5																	
		P	18	1	47	9	6	1	1	2	29	TR	70											
3	SP54125	H	17	1	46	14	3																	
		P	18	1	45	12	6	2	1	2	29	TR	80											

Heat Treatment	Non-Destructive Test (N.D.T)	Flaring/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**

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