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 CONTRACT(P/O) NO.(계약번호) : 25598
 PR NO.(주문서번호) : F170600262
 COMMODITY(제품명) : E.R.W. CARBON STEEL PIPE
 SPECIFICATION(제품규격) : ASTM A53 B

검사증명서 MILL TEST CERTIFICATE

EN 10204 TYPE 3.1 - 2004



출산공장 : 울산광역시 북구 염포로 706
 706, Yeompo-ro, Buk-gu, Ulsan, Korea

CUSTOMER(고객사): 현대중합상사(주)

No.	TYPE OF PIPE END ※1	SIZE OUT-DIA×THICK×LENGTH (외경×두께×길이)	PCS (본)	WEIGHT (KG)	TOTAL LENGTH (F)	HEAT No.	Hydrostatic Test		Spec. ※2	Tensile Properties(Gage Length : 2 inch)				Hardness Test		Hardness Test & CVN Impact Test					D.W.T Test(°C)					
							Pressure	Time		Tensile Strength		Yield Strength	Y/R Rate	E.L	Max. Value	CVN Impact Test(°C)				Shear Area(%)						
										Base	Weld					Absorbed Energy(Joule)			Shear Area (%)							
							PSI	SEC		MPa	MPa	MPa	%	%	※3	Specimen size	1	2		3	avg	1	2	avg		
1	EB BE	24" X 0.375 " X 20.177 F	14	12,130	282.478	P38226	660	5	T	454	473	353		42												
2	EB BE	24" X 0.375 " X 20.177 F	38	32,923	766.726	SU96641	660	5	T	464	454	303		42												
		TOTAL	52	45,053	1,049,204																					

No.	Heat No.	Spec. ※4	Chemical Composition(%)													Zn-Coating Test		HC-Test	H.I.C Test			S.S.C Test	Remark	
			2:×100 3:×1000 4:×10000													Zn Coating	Copper Sulfate Test	Collapse Pressure	CLR	CTR	CSR			
			C	Si	Mn ※7	P	S	Cu	Ni	Cr	Mo	V	CM3 ※10				Time	Result	psi	%	%			%
			Min.	Max.																				
1	P38226	H	6	1	77	12	7																	※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(2012ED)
		P	7	2	81	12	8	2	1	3	3	1	62											
		P	7	1	81	12	7	2	1	3	3	1	62											
2	SU96641	H	17	1	50	9	3																	
		P	17	1	51	8	5	1	1	2	2	1	51											
		P	17	1	52	9	5	1	1	2	3	1	52											

Heat Treatment	Non-Destructive Test	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.
 * 본 검사증명서에 명기된 규격용도의 사용시 안전상 문제가 발생할 수 있으며, 검사증명서 위.변조시 사문서 위조로 불이익을 당하실 수 있습니다.

SURVEYOR

QA Manager