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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

HYUNDAI STEEL
울산공장 : 울산광역시 북구 염포로 706
706, Yeompo-ro, Buk-gu, Ulsan, Korea

CUSTOMER(고객사): 현대종합상사(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 Pressure PSI	Hydrostatic Test Time SEC	Spec.	※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	Specimen size	CVN Impact Test(℃) Absorbed Energy(Joule) 1	2	3	avg	Shear Area (%)	D.W.T Test(℃) Shear Area(%) 1	2	avg
									Min.		415	415	240														
									Max.											Criteria : In the case of 10×10)							
1	EB BE	18" X 0.500 " X 20.177 F	2	1,712	40.354	517676	1170	5		T	531	522	429		41												
2	EB BE	18" X 0.500 " X 20.177 F	9	7,705	181.593	P34106	1170	5		T	460	483	384		42												
3	EB BE	18" X 0.500 " X 20.177 F	29	24,827	585.133	SQ42693	1170	5		T	492	500	357		44												
		TOTAL	40	34,244	807.08																						

No.	Heat No.	Spec.	※4	C	Si	Mn ※7	P	S	Cu	Ni	Cr	Mo	V	CM3 ※10	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
				Chemical Composition(%) 2 :×100 3 :×1000 4 :×10000											Zn-Coating Test			HC-Test	H.I.C Test			
				2	2	2	3	3	2	2	2	3	3	3		Time	Result	psi	%	%	%	
		Min.																				
		Max.		30		120	50	45	40	40	40	150	80	1000								
1	517676		H	7	20	111	18	2														
			P	7	20	110	16	3	1	1	2	3	2	43								
			P	8	20	109	17	4	1	1	2	2	2	43								
2	P34106		H	6	1	77	9	6														
			P	6	2	81	8	8	2	1	2	4	1	60								
			P	7	2	81	11	9	2	1	3	2	1	55								
3	SQ42693		H	19	1	79	9	3														
			P	18	1	77	8	4	2	1	2	3	1	58								
			P	18	1	78	8	4	2	1	2	3	1	58								

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(2012ED)

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.
* 본 검사증명서에 명기된 규격용도외 사용시 안전상 문제가 발생할 수 있으며, 검사증명서 위.변조시 사문서 위조로 불이익을 당하실 수 있습니다.

SURVEYOR

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