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 증명서번호 : E201204-0148-000949(5007927)  
 제품명 : H.F.W STEEL PIPE  
 제품규격 : API 5LB PSL1/ASTM A53B(2007)  
 SPECIFICATION : API 5LB PSL1/ASTM A53B(2007)

MILL'S QUALITY CERTIFICATES  
**SeAH Steel Corp.**  
 (주)세아제강  
 HEAD OFFICE : BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA  
 POHANG PLANT : 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

발급일자 : 2012.03.30  
 계약서번호 : 1103096734  
 수요자 : PLESA  
 주문자 : DUFERCO SA  
 SHIPPER : DUFERCO SA

NO.	HEAT NO. (BATCH NO.)	관 단 TYPE #1	주 문 치 수 ORDER SIZE			수 량 QUANTITY			비 고 REMARK
			12"	X 0.225"	X 6.120 M	본 수 PCS	총 길 이 TOTAL LENGTH	중 량(M/T) WEIGHT	
1	SQ67128 (SIM3262040)	BBE	12"	X 0.225"	X 6.120 M	559	3,421.080 M	153.025	<b>ORIGINAL</b>
2	SQ67128 (SIM3271010)	BBE	12"	X 0.225"	X 6.120 M	155	948.600 M	42.431	
3	SQ67125 (SIM3271020)	BBE	12"	X 0.225"	X 6.120 M	168	1,028.160 M	45.990	
4	SQ67433 (SIM3271030)	BBE	12"	X 0.225"	X 6.120 M	76	465.120 M	20.805	

HEAT NO. (BATCH NO.)	5 Sec. psi	RES ULT #2	N D T #3	V I S U E A N S I O N & O N	F L A T T E N I N G	S H O C K	C O M P R E S S I O N	R E A G I N G T E M P E R A T U R E G A U S S #3	B E N D I N G	D R I F T	C R U S H	F L A R I N G	F L A N G E	R E L A T I V E T E N S I N G	ZINC COATING TEST		CHEMICAL COMPOSITION(%)											TENSILE TEST (Gage Length : 50mm)			IMPACT TEST (°C)		HARD- NESS TEST	HEAT TREATMENT						
															WEIGHT OF ZINC COATING	관형성 C.SALK	DEP S I G	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	CEQ	D I R	TENSILE STRENGTH			YIELD STRENGTH	E.L	ENE- RGY	SHEAR AREA	HRB	SN
															#4	#5	#6	#7											#8	#9	psi	psi			%	Joule	%	#11		
기준 SPEC								30								MAX	26		120	30	30	40	40	40	15	80								99						
																MIN																								
1	SQ67128 (SIM3262040)	750	G	G	G	G	G	G							H	15	2	68	15	3																				
															P	14	3	69	14	3	1	1	2	TR	2	1	TR		T	71500	52640	34			83	G				
2	SQ67128 (SIM3271010)	750	G	G	G	G	G	G							H	15	2	68	15	3																				
															P	14	1	67	16	4	1	1	2	TR	1	2	1	T	72370	52060	35			84	G					
															P	15	2	68	16	4	1	1	1	TR	1	2	1	W	74110											
3	SQ67125 (SIM3271020)	750	G	G	G	G	G	G							H	15	2	68	15	2																				
															P	14	1	68	14	2	1	1	2	TR	2	1	2	T	72510	53800	35			84	G					
															P	14	2	67	16	1	1	1	2	TR	2	1	2	W	74110											
4	SQ67433 (SIM3271030)	750	G	G	G	G	G	G							H	15	1	67	11	5																				
															P	14	1	66	11	4	1	1	1	TR	2	1	TR	T	70770	51480	35			84	G					
															P	14	1	67	12	5	1	1	1	TR	2	1	1	W	74690											

OTHERS : \*1-BBE:Black Beveled End(30°) \*2-U:Weld Seam Ultrasonic Test \*6-H:Heat(Ladle) Analysis, P:Product Analysis \*7-2:X100, 3:X1000 \*9-T:Base Metal Transverse, W:Weld Part Transverse \*10-E.L:Elongation \*11-S.N:Seam Normalizing \*G:GOOD \*Tr:Trace  
 \* THIS CERTIFICATE IS ISSUED ACCORDING TO EN 10204 3.1 (ISO 10474 3.1.B)

Surveyor : WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH ABOVE SPECIFICATION AND THE RESULTS OF ALL TEST ARE ACCEPTABLE. THE USE OF THE MATERIAL OUTSIDE THE SPECIFICATIONS INDICATED ON THIS CERTIFICATE MAY CAUSE SAFETY AND/OR MONETARY PROBLEMS. FURTHERMORE, ANY ORGANIZATION OR PERSON(S) WHO DELIBERATELY MODIFIES THE CERTIFICATE WILL BE PROSECUTED FOR FORGING AN OFFICIAL DOCUMENT (ACCORDING TO THE PROVISIONS OF THE CRIMINAL CODE 231)

Manager of Q.M Dept.  
 N. J. Baek

