





# Mill Test Certificate/검사증명서

Certificate No./증명서번호 : 211014-FP01PN-0012A2-0004  
Date of Issue/발행일자 : Oct., 22, 2021

Order No./계약번호 : 01S5126117

PO No./주문번호 : P4 01S5126117(CS)(2108)

Supplier /주분자 : POSCO INTERNATIONAL CORPORATION

Commodity : PLATE NACE MR0103/0175

Customer /고객사 : MYUNGSUNG STEEL

Spec & Type : SA516-70 ASME 2019ED NACE MR 0103/0175

Size/치수	Product No./제품번호	Quantity/수량	Weight/중량 (kg)	Heat No./제강번호	Position	Tensile Test /인장시험		Hardness /경도	A.G.S	Division	Chemical Composition/화합성분												
						YP (MPa)	TS (MPa)				EL (%)	C (%)	Si (%)	Mn (%)	P (%)	S (%)	Cr (%)	Ni (%)	B (ppm)	Cu (%)	Mo (%)	Nb (%)	Ti (%)
10x2438x12192	PC96362901-2902	2	4,666	SF48385	T	379	546	24	9.5	L	0.1867	0.334	1.330	0.0111	0.0030	0.031	0.016	0	0.017	0.006	0.002	0.0018	0.003
*** Sub Total (080) ***		2	4,666 (kg)		* %L Date ==> 2021/10/14	CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + Cr + Mo + V/5				P	0.1879	0.331	1.339	0.0110	0.0025	0.030	0.016	0	0.018	0.004	0.001	0.0022	0.002
12x2438x6096	PB60709306	1	1,400	SB28165	T	359	540	25	9.0	L	0.1883	0.345	1.350	0.0073	0.0023	0.021	0.013	0	0.021	0.004	0.002	0.0018	0.002
12x2438x6096	PB60709205-9206	2	2,800	SB28165	T	365	540	27	9.0	P	0.1884	0.341	1.352	0.0068	0.0024	0.022	0.013	1	0.018	0.006	0.002	0.0015	0.001
*** Sub Total (070) ***		3	4,200 (kg)		* %L Date ==> 2021/10/14	CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + Cr + Mo + V/5				L	0.1883	0.345	1.350	0.0073	0.0023	0.021	0.013	0	0.021	0.004	0.002	0.0018	0.002
12x2438x12192	PB60709301-9302	2	5,600	SB28165	T	359	540	25	9.0	P	0.1884	0.341	1.352	0.0068	0.0024	0.022	0.013	1	0.018	0.006	0.002	0.0015	0.001
*** Sub Total (080) ***		2	5,600 (kg)		* %L Date ==> 2021/10/14	CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + Cr + Mo + V/5				L	0.1883	0.345	1.350	0.0073	0.0023	0.021	0.013	0	0.021	0.004	0.002	0.0018	0.002

We hereby certify that the material herein has been made in accordance with the order and above specification.  
 This material has been fully killed and made by basic oxygen process. This material is fine grained steel.  
 This material has been made by vacuum degassing and calcium treated process.  
 No repair welding was performed to the products. Test Certificate is issued according to ISO 10474/EN 10204 3.1.



본 검사증명서 위.변조시 사문서 위조(형법 제231조)로 불이익을 당하실 수 있습니다.

Surveyor To :

# T.C.BAE



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Supplier /주분자 : POSCO INTERNATIONAL CORPORATION  
/품명 : PLATE NACE MR0103/0175

Customer /고객사 : MYUNGSUNG STEEL  
/규격 : SA516-70 ASME 2019ED NACE MR 0103/0175

Product No. /제품번호	Division	Sol-AI		CEQ		CEQ2	
		(%)	(%)	(%)	(%)	(%)	(%)
PC96362901-2902	L	0.035	0.42	0.42	0.41		
	P	0.036	0.42	0.41			
*** Sub Total (060) **			2	4,666 (kg)			* B/L Date ==> 2021/10/14 CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5      CEQ2 (A) = C + Mn/6
PB60709306	L	0.033	0.42	0.41			
	P	0.031	0.42	0.41			
PB60709205-9206	L	0.033	0.42	0.41			
	P	0.031	0.42	0.41			
*** Sub Total (070) **			3	4,200 (kg)			* B/L Date ==> 2021/10/14 CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5      CEQ2 (A) = C + Mn/6
PB60709301-9302	L	0.033	0.42	0.41			
	P	0.031	0.42	0.41			
*** Sub Total (090) **			2	5,600 (kg)			* B/L Date ==> 2021/10/14 CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5      CEQ2 (A) = C + Mn/6

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Surveyor To :

# T.C.BAE



ORIGINAL

검사증명서  
MILL TEST CERTIFICATE



주문번호/Order No. : P23B400235  
발주번호/PO No. : MYUNGSUNG STEEL  
품명/Commodity : STEEL PLATE  
제품규격/Specification : ASME SA516-70 MT LTV 2021ED  
고객사/Supplier : MYUNGSUNG STEEL  
수요자/Customer : MYUNGSUNG STEEL  
검사증명서번호/Certificate No. : DP3-2-240129-044-003  
발행일자/Date of issue : 2024-01-29

제품치수 Dimension 단위 Unit Inch: ", mm: Space	제품번호 Product No	수량 Quantity	중량 Weight kg	화합성분(%) Chemical Composition										비고 Remarks
				Cu	Mo	Nb	Ti	V	T.Al	S.Al	Ceq	B	Comp1	
14.00*2438*12192 *Specimen No: DP10920029-a, DP10920029-c, DP10920001-d, DP10920001-e ** Normalized: 910 °C, 28min	B379179-01, 02, 03 Sub Total (120)	3	3,266 9,798	0.01 0.007	0.004 0.003	0.02 0.019	0.015 0.013	0.002 0.003	0.036 0.038	0.034 0	0.403 0.398	0.0001 0.0001	0.022 0.022	MYUNGSUNG STEEL
16.00*2438*6096 *Specimen No: DP10932605-a, DP10932605-c, DP10932605-d, DP10932601-e ** Normalized: 910 °C, 31min	B378691-01 Sub Total (150)	1	1,866 3,733	0.01 0.012	0.003 0.002	0.02 0.018	0.014 0.012	0.003 0.003	0.039 0.04	0.037 0	0.4 0.387	0.0001 0.0001	0.023 0.021	MYUNGSUNG STEEL
16.00*2438*12192 *Specimen No: DP10932605-a, DP10932605-c, DP10932605-d, DP10932601-e ** Normalized: 910 °C, 31min	B378691-04, 05 Sub Total (160)	2	1,866 7,466	0.01 0.012	0.003 0.002	0.02 0.018	0.014 0.012	0.003 0.003	0.039 0.04	0.037 0	0.4 0.387	0.0001 0.0001	0.023 0.021	MYUNGSUNG STEEL

We hereby certify that the material has been made by basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirement called for by the above order. If the amount of Cr, Ni, Cu, Mo, Ti or Si is blank, the heat analysis for that element is less than 0.02% and/or of Nb, V is blank, it is less than 0.008%. \* Inspection documents: According to EN 10204 Type 3.1, No welding repair. NACE MR0175(SO15156)/MR0103 Hardness only. Vacuum degassed.

본 주문품은 상기의 규격용도 외 타용도로 사용시 제품순상 및 안전사고등의 문제가 발생할 수 있으며, 본 검사증명서를 위조 또는 변조시 형사법에 의해 처벌될 수 있습니다.

원본 검증 방법: 동국제강 E-Biz 홈페이지 접속(https://ebiz.dongguksteel.com/) → 고객포탈 진박 → 검사증명서 원본검증 클릭(우측 하단) → 정보인력후 검색  
QR Code 이용 방법: Google Play 'QReal' 검색 후 다운로드/실행 → QR Code 스캔

Surveyor to: Surveyor to  
Chief of Quality Control Team / J.W.Lee  
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Order No./계약번호 : 01S4937689

PO No./주문번호 : P4 INN NIPA PJT(2104)(02)

Supplier /수급자 : POSCO INTERNATIONAL CORPORATION

Commodity /품명 : PLATE NACE MR 0103, 0175

Customer /고객사 : MYUNGSUNG STEEL

Spec & Type /규격 : ASME SEC II PART A 19ED SA516-70N MT LTV

Product No. 제품번호	Division	V (%)	Sol-Al (%)	CEQ (%)
PC93589502	L	0.003	0.035	0.41
	P	0.002	0.032	0.42
*** Sub Total (050) ***				
			1	2,800 (kg)
			2	4,200 (kg)
*** Grade Total ***				
				CEQ (G) = C + Mn/6 + (Ni + Cu)/15 + (Cr + Mo + V)/5

\* B/L Date ==> 2021/06/07

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