


SO# 955224; SO Line: 1; Item: 6 XH SMLS LR 90 A/SA420 WPL6 SKB; Heat #: 145963; Customer ID: PLEHOU; Customer PO: 398

MATERIAL TEST & INSPECTION CERTIFICATE																				SUNGKWANG BEND CO., LTD.(SKB)							
CUSTOMER: FORGINGS FLANGES & FITTINGS INC.										According to										26, Noksan-dan 262-ro, Gangeo-Gu, Busan, Korea							
PROJECT NAME: N/A										DIN 50049 3.1 / EN 10204 3.1 / ISO 10474 3.1										TEL: 82-651-3300-450							
																				FAX: 82-651-3300-335							
																				http://www.skbend.com							
PURCHASE ORDER NO.		205777			SPEC. FOR MATERIAL		ASTM/ASME A/SA420WPL6-S 13/13ED					CERTIFICATE NO.		QCLR2016081371													
PJT NO.		N/A			SPEC. FOR INSPECTION		ASME B16.9					DATE OF ISSUE		2015.06.18													
STARTING MATERIAL		SEAMLESS PIPE			SKB NO.		2014123102					VISUAL & DIMENSION		SATISFACTORY													
NO.	SEQ/LINE/ITEM NO	DESCRIPTION				QTY	HEAT NO.		MFG ID NO.		FOR/CODE/TAG NO																
37		90D ELBOW(L) X-S 6" B/W SMLS Black				447	145963		145963																		
CHEMICAL COMPOSITION(%) (L: LADLE, P: PRODUCT)																TENSILE TEST											
HEAT NO.	STD.	BPEC.	C	SI	Mn	P	S	NI	Cr	Mo	Cu	V	Nb	N	Al	B	Zr	Fe	Ti	CE	SPEC.	Y.S 0.2% u/Heel	T.S	EL	RA		
																						KSI	KSI	%	%		
			0.30	0.40	1.35	0.035	0.040	0.40	0.30	0.12	0.40	0.08	0.02									MIN	35.0	80.0	20.0		
145963	L		0.12	0.24	1.04	0.009	0.004	0.03	0.06	0.03	0.08	0.04	<0.01									MAX	45.8	85.0	44.0		
	P																										
	L																										
	P																										
IMPACT TEST	TEST TEMP.	SIZE OF SPECIMEN(mm)	ABSORBED ENERGY				LATERAL EXPANSION				PERCENT SHEAR				HARDNESS HRC		HEAT TREATMENT		NORMALIZED, 600°C, 30min, "N"								
			STD. 110x151J ₂ Min/Ave.				STD. J				STD. I				MIN	MAX	22.0	PMI	N/A	N/A	N/A	N/A					
145963	-45°C	10X10	BM	82.60	83.00	87.20	84.57								HB	142		FLATTENING TEST	N/A								"MEMO"
			H.A.Z															BENDING TEST	N/A								
			WM															HYDROSTATIC TEST	N/A								
			BM															CORROSION TEST	N/A								
			H.A.Z															GRAIN SIZE TEST	N/A								
			WM															HIC TEST	N/A								
MATERIAL MEETS THE REQUIREMENTS OF NACE MR0175-2009 & 0103-2012																WE CERTIFY THIS MATERIAL HAS BEEN MANUFACTURED AND EXAMINED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE SPECIFICATION AND THE RESULTS OF ALL EXAMINATION ARE ACCEPTABLE.											
PED 97/23/EC / MATERIAL ALL MANUFACTURED IN KOREA.																											
FREE OF MERCURY & FREE OF RADIATION																											
<input type="checkbox"/> REVIEWED BY : _____ <input type="checkbox"/> WITNESSED BY : _____																 CHIEF QUALITY OFFICER											

SKE-8903

*본 검사증서에 영가된 규격용의 시험시 안전성 문제가 발생할 수 있으며, 검사증서 위 변조시 사문서 위조(형법213조)로 형사책임을 질 수 있습니다.