PURCHASER

INSPECTION CERTIFICATE

CERTIFICATE No. : 043264

DATE OF ISSUE : 2014. 01. 03

Trade Designation	Dimension	Mfg. No. (Lot No.)	Applicable Specification and Classification
DW-100	1 . 2	K3AD1113555	AWS A 5.20 E71T-1C According to EN 10204 Type 3.1

Chemical Composition of Deposited Metal (%)

Elements	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V			
Spec.	Max. 0.12	Max. 0.90	Max. 1.75	Max. 0.03	Max. 0.03	Max. 0.35	Max. 0.50	Max. 0.20	Max. 0.30	Max. 0.08			
Result	0.06	0.41	1.23	0.01	0.01	0.05	0.04	0.05	0.03	0.01			

Mechanical Properties of Deposited Metal

Tension Test				Impact Test				
Spec.	Yield Strength at 0.2% Offset N/mm²	Tensile Strength N/mm²	Elongation %	Spec.	Absorbed Energy (J) Test Temp. at -20℃			
					Avg.	Each		
	Min. 400	483 ~ 655	Min. 22		Min. 27	Min. 20		
Result	519	592	29	Result	69	76	63	67

Welding Conditions				Hydrogen Test				
Type of Current	DC-EP	Shielding Gas	CO_2	Avg. ml/100g	1.	2.	3.	4.
Amperage	260 A			2.6	2.8	3.0	2.3	2.4
Arc Voltage	30 V			Method : According to AWS A4.3 (Gas Chromatography) Welding condition : 230A-26V-30cpm(EXT.=25mm)				

WE HEREBY CERTIFY THAT TEST RESULTS OF THE ABOVE WELDING MATERIAL ARE AS DESCRIBED HEREIN AND SATISFY THE REQUIREMENTS OF THE APPLICABLE SPECIFICATION.

KOBE WELDING OF KOREA CO., LTD.

APPROVED BY CHIEF INSPECTOR Kim Insep

PURCHASER

INSPECTION CERTIFICATE

CERTIFICATE No. : 042534

DATE OF ISSUE : 2013. 09. 20

Trade Designation	Dimension	Mfg. No. (Lot No.)	Applicable Specification and Classification
DW-100	1 . 2	K3A71213555	AWS A 5.20 E71T-1C According to EN 10204 Type 3.1

Chemical Composition of Deposited Metal (%)

Elements	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V			
Spec.	Max. 0.12	Max. 0.90	Max. 1.75	Max. 0.03	Max. 0.03	Max. 0.35	Max. 0.50	Max. 0.20	Max. 0.30	Max. 0.08			
Result	0.06	0.44	1.33	0.02	0.01	0.02	0.01	0.03	0.02	0.01			

Mechanical Properties of Deposited Metal

Tension Test				Impact Test					
Spec.	Yield Strength at 0.2% Offset N/mm^2	Tensile Strength N/mm^2	Elongation %	Spec.	Absorbed Energy (J) Test Temp. at -20℃				
					Avg.	Each			
	Min. 400	483 ~ 655	Min. 22		Min. 27	Min. 20			
Result	528	588	26	Result	130	132	132	127	

Welding Conditions				Hydrogen Test					
Type of Current	DC-EP	Shielding Gas	CO_2	Avg. ml/100g	1.	2.	3.	4.	
Amperage	260 A			3.1	3.4	2.9	2.9	3.1	
Arc Voltage	30 V			Method : According to AWS A4.3 (Gas Chromatography) Welding condition : 230A-26V-30cpm(EXT.=25mm)					

WE HEREBY CERTIFY THAT TEST RESULTS OF THE ABOVE WELDING MATERIAL ARE AS DESCRIBED HEREIN AND SATISFY THE REQUIREMENTS OF THE APPLICABLE SPECIFICATION.

KOBE WELDING OF KOREA CO., LTD.

APPROVED BY CHIEF INSPECTOR

Kim ㅎㅅㅈ