



INSPECTION CERTIFICATE

EN 10204 3.1

Norsk Sveiseteknikk as

P.O. Box 171,3371 Vikersund,Norway

Tainan City 72042, Taiwan, R.O.C.

Telephone +47 32 78 85 99,Fax +47 32 78 75 76

nst@nst.no,www.nst.no

Customer	WATANABE TRADING CO., LTD.	Commodity	NST MIG 316LSi	Mfg. Date	2013.10.31	Lot No.	13A31001
Specification & Classification	AWS A5.9 ER316LSi/EN ISO 14343:2007 G 19 12 3 LSi	Dimension	0.8 mm × 200 Kgs	Issue Date	2013.11.05	Certificate No.	EXP1390198

Chemical Composition for Solid Electrode and Rod (%) / Weld Metal Chemical Composition (%)

Element	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	N				
Requirement	0.03 max	1.0-2.5	0.65-1.00	0.03 max	0.02 max	0.30 max	11.0-14.0	18.0-20.0	2.5-3.0	-				
FILLER METAL	0.012	1.56	0.87	0.022	0.003	0.10	11.25	18.24	2.54	0.068				

Category	Tension Test					Impact Test							Welding Condition			
	Yield * Strength N/mm ²	Yield ** Strength N/mm ²	Tensile Strength N/mm ²	Elongation %	Reduction of Area %	Test Temp. °C	Charpy V-Notch Absorbed Energy J (AVE.)						Type of Current	Welding Current A	Arc Voltage V	Shielding Gas
Requirement	380 min	-	550 min	39 min	—		—						—	—	—	—
Test Result	436	-	608	40	-	-	-	-	-	-	-	-	DCEP	50-120	12-20	98%Ar+2%O2

Bend Test			Hardness Test	Fillet Weld Test	Radiographic Test	Moisture %	Diffusible Hydrogen mL/100gDM (AVE.)	Heat No.	Mn+Ni+Cr+Mo+V
Face	Root	Side							
NR	NR	NR	NR	NR	ACCEPTABLE	NR	NR	E52216	-

We hereby certify that this report is correct and that all test results are in compliance with the specification described herein.

The material described above is free irradiation and free mercury.

KUANG TAI METAL INDUSTRIAL CO., LTD.

No. 20, Gongye Rd., Erzhen, Guantian Dist., Tainan City 72042, Taiwan, R.O.C.

Manager Of Quality Assurance

Remarks WEIGHT: 400 Kgs.
NST Purchase spec.NST MIG 316LSi Rev.1
Date.2008-02-05
1992 WRC Ferrite:8.1 FN
Delong Ferrite::11.2%
Schaeffler Ferrite:10.4%

ISO 9001
CERTIFICATE NO.
NO.:6M8Y023-10



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Customer	WATANABE TRADING CO., LTD.	Commodity	NST TIG 316LSi	Mfg. Date	2013.10.29	Lot No.	13A29006
Specification & Classification	AWS A5.9 ER316LSi/EN ISO 14343:2007 19 12 3 LSi	Dimension	1.6 × 1000mmx5 Kgs	Issue Date	2013.11.05	Certificate No.	EXP1390198

Chemical Composition for Solid Electrode and Rod (%) / Weld Metal Chemical Composition (%)

Element	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	N				
Requirement	0.03 max	1.0-2.5	0.65-1.00	0.03 max	0.02 max	0.30 max	11.0-14.0	18.0-20.0	2.5-3.0	-				
FILLER METAL	0.012	1.56	0.87	0.022	0.003	0.10	11.25	18.24	2.54	0.068				

Category	Tension Test					Impact Test							Welding Condition				
	Yield * Strength N/mm ²	Yield ** Strength N/mm ²	Tensile Strength N/mm ²	Elongation %	Reduction of Area %	Test Temp. °C	Charpy V-Notch Absorbed Energy J (AVE.)						Type of Current	Welding Current A	Arc Voltage V	Shielding Gas	
Requirement	380 min	-	550 min	39 min	-		-						-	-	-	-	
Test Result	430	-	603	39.5	-	-	-	-	-	-	-	-	-	DCEN	120-180	-	100%Ar

Bend Test			Hardness Test	Fillet Weld Test	Radiographic Test	Moisture %	Diffusible Hydrogen mL/100gDM (AVE.)	Heat No.	Mn+Ni+Cr+Mo+V
Face	Root	Side							
NR	NR	NR	NR	NR	ACCEPTABLE	NR	NR	E52216	-

We hereby certify that this report is correct and that all test results are in compliance with the specification described herein.

The material described above is free irradiation and free mercury.

KUANG TAI METAL INDUSTRIAL CO., LTD.

No. 20, Gongye Rd., Erzhen, Guantian Dist., Tainan City 72042, Taiwan, R.O.C.

Manager Of Quality Assurance

Remarks WEIGHT: 205 Kgs.
NST Purchase spec.NST TIG 316LSi Rev.1
Date.2008-02-05
1992 WRC Ferrite:8.1 FN
Delong Ferrite::11.2%
Schaeffler Ferrite:10.4%

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Customer	WATANABE TRADING CO., LTD.	Commodity	NST TIG 316LSi	Mfg. Date	2013.10.29	Lot No.	13A29010
Specification & Classification	AWS A5.9 ER316LSi/EN ISO 14343:2007 19 12 3 LSi	Dimension	2.0 × 1000mmx5 Kgs	Issue Date	2013.11.05	Certificate No.	EXP1390198

Chemical Composition for Solid Electrode and Rod (%) / Weld Metal Chemical Composition (%)

Element	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	N				
Requirement	0.03 max	1.0-2.5	0.65-1.00	0.03 max	0.02 max	0.30 max	11.0-14.0	18.0-20.0	2.5-3.0	-				
FILLER METAL	0.012	1.56	0.87	0.022	0.003	0.10	11.25	18.24	2.54	0.068				

Category	Tension Test					Impact Test							Welding Condition				
	Yield * Strength N/mm ²	Yield ** Strength N/mm ²	Tensile Strength N/mm ²	Elongation %	Reduction of Area %	Test Temp. °C	Charpy V-Notch Absorbed Energy J (AVE.)						Type of Current	Welding Current A	Arc Voltage V	Shielding Gas	
Requirement	380 min	-	550 min	39 min	—		—						—	—	—	—	
Test Result	430	-	603	39.5	-	-	-	-	-	-	-	-	-	DCEN	140-200	—	100%Ar

Bend Test			Hardness Test	Fillet Weld Test	Radiographic Test	Moisture %	Diffusible Hydrogen mL/100gDM (AVE.)	Heat No.	Mn+Ni+Cr+Mo+V
Face	Root	Side							
NR	NR	NR	NR	NR	ACCEPTABLE	NR	NR	E52216	-

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The material described above is free irradiation and free mercury.

KUANG TAI METAL INDUSTRIAL CO., LTD.

No. 20, Gongye Rd., Erzhen, Guantian Dist., Tainan City 72042, Taiwan, R.O.C.

Manager Of Quality Assurance

Remarks WEIGHT: 210 Kgs.
NST Purchase spec.NST TIG 316LSi Rev.1
Date.2008-02-05
1992 WRC Ferrite:8.1 FN
Delong Ferrite::11.2%
Schaeffler Ferrite:10.4%

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Customer	WATANABE TRADING CO., LTD.	Commodity	NST TIG 316LSi	Mfg. Date	2013.10.29	Lot No.	13A29005
Specification & Classification	AWS A5.9 ER316LSi/EN ISO 14343:2007 19 12 3 LSi	Dimension	2.4 × 1000mmx5 Kgs	Issue Date	2013.11.05	Certificate No.	EXP1390198

Chemical Composition for Solid Electrode and Rod (%) / Weld Metal Chemical Composition (%)

Element	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	N				
Requirement	0.03 max	1.0-2.5	0.65-1.00	0.03 max	0.02 max	0.30 max	11.0-14.0	18.0-20.0	2.5-3.0	-				
FILLER METAL	0.012	1.56	0.87	0.022	0.003	0.10	11.25	18.24	2.54	0.068				

Category	Tension Test					Impact Test							Welding Condition				
	Yield * Strength N/mm ²	Yield ** Strength N/mm ²	Tensile Strength N/mm ²	Elongation %	Reduction of Area %	Test Temp. °C	Charpy V-Notch Absorbed Energy J (AVE.)						Type of Current	Welding Current A	Arc Voltage V	Shielding Gas	
Requirement	380 min	-	550 min	39 min	—		—						—	—	—	—	
Test Result	430	-	603	39.5	-	-	-	-	-	-	-	-	-	DCEN	180-240	—	100%Ar

Bend Test			Hardness Test	Fillet Weld Test	Radiographic Test	Moisture %	Diffusible Hydrogen mL/100gDM (AVE.)	Heat No.	Mn+Ni+Cr+Mo+V
Face	Root	Side							
NR	NR	NR	NR	NR	ACCEPTABLE	NR	NR	E52216	-

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The material described above is free irradiation and free mercury.

KUANG TAI METAL INDUSTRIAL CO., LTD.

No. 20, Gongye Rd., Erzhen, Guantian Dist., Tainan City 72042, Taiwan, R.O.C.

Manager Of Quality Assurance

Remarks WEIGHT: 200 Kgs.
NST Purchase spec.NST TIG 316LSi Rev.1
Date.2008-02-05
1992 WRC Ferrite:8.1 FN
Delong Ferrite::11.2%
Schaeffler Ferrite:10.4%

ISO 9001
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