M-430LNb

STAINLESS STEEL
SOLID WIRE

KISWEL

Rev.0

M-430LNb

KISWEL

■ Description & Application

- **Solid welding wire for ferrite stainless steels in automotive exhaust system**

  (AISI STS 409, 439, 436 and 441)
- **Welding of dissimilar assemblies in exhaust system applications including carbon steel and austenitic or ferritic stainless steel.**

■ Classification

- **EN ISO 14343-B : SS430LNb**

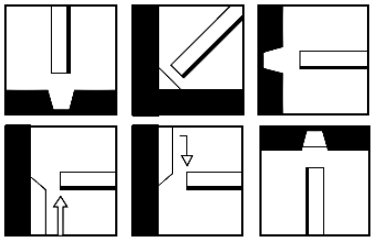
■ Typical Chemical Composition of Wire (%)

	C	Si	Mn	P	S	Cr	Nb
EN ISO SS430LNB	≤0.03	≤0.5	≤0.6	≤0.030	≤0.030	17.8-18.8	0.8 x C To 1.2
M-430LNb	**0.016**	**0.41**	**0.38**	**0.023**	**0.002**	**18.0**	**0.50**

■ Shielding Gas

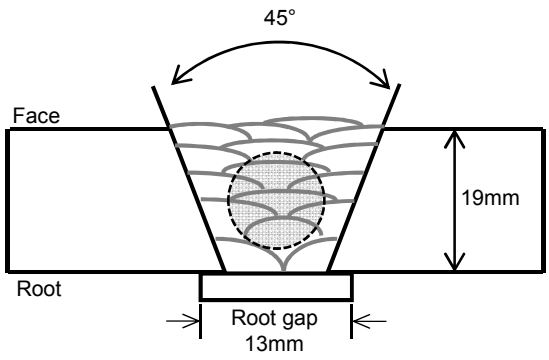
- **Ar + 1~3%O_2 (15~25ℓ/min)**
- **Ar + 1~5%CO_2 (15~25ℓ/min)**

■ Welding Position



M-430LNb

All Weld Metal Test Specimen



Base metal	STS 304L
Diameter	1.2mm
Current / Voltage	250A /240V
Stick out	20mm
Travel Speed	45 CPM
Welding Position	PA / 1G

Typical Mechanical Properties of Weld Metal

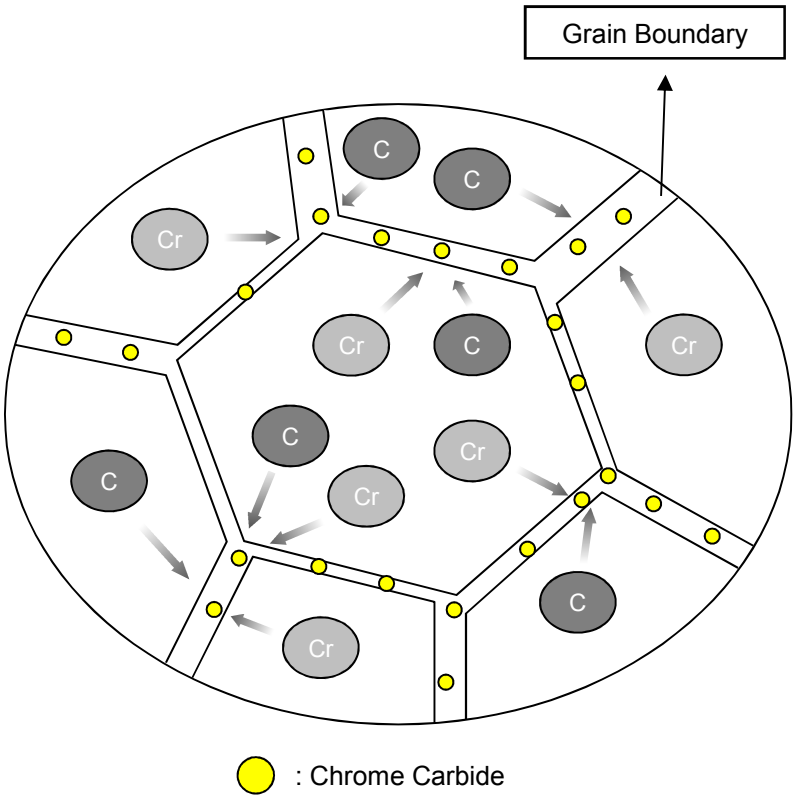
	Shielding Gas	PWHT	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)
EN ISO SS430LNb	-	AW	≥ 220	≥ 410	≥ 15	-
M-430LNb	**Ar + 2%O_2**	**AW**	**260**	**450**	**45**	**-**

Typical Operating Procedures

Dia (mm)	Shielding Gas	Current (amps)	Voltage (volts)	Feed speed (m/min)	Melt-off Rate (Kg/Hr)
1.2	Ar + 2% O_2	80-240	14-25	2.5-7.5	0.7-2.0
	Short circuit				
1.2	Ar + 2% O_2	270-350	27-29	10.0-12.5	2.8-3.5
	Spray				

* Polarity : DCEP (DC+)

■ Grain boundary sensitization



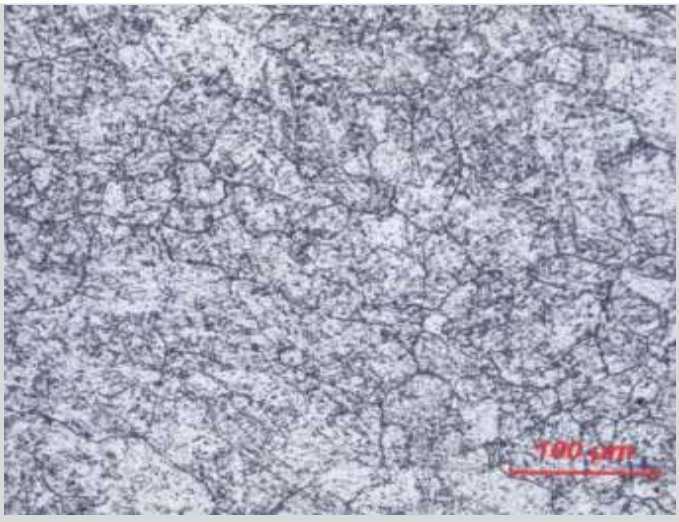
▶ What is sensitization?

Weld decay is caused by precipitation of Cr carbide at grain boundaries

▶ Effective measures for preventing Sensitization

1) Reduction of carbon content
2) Addition of strong carbide formers (Ti, Nb)
3) Rapid cooling

■ Corrosion test

M-430	M-430LNb
	

- Test method : JIS G 5071(KS D 0225)
- Echant : 10% Oxalic acid solution
- Base Metal : SAPH 310 + STS 409
- Sensitization heat treatment : 550℃(2Hr)

■ Packaging



■ Size and Weight

Dia. (mm)	0.8, 0.9, 1.0, 1.14, 1.2, 1.32, 1.4, 1.6			
Weight (kg)	2	5	12.5, 15, 20	100~200
Packaging	Plastic Spool			Pail-pack
	-		Wire Basket	

■ Handling

• Do not speed up or brake loaded products to prevent rollover during transport.

• Please run out product within two weeks of its packaging release.

• If the product is discontinued for more than two weeks, it should be packed and stored separately to prevent air contact.

• Products that are in use on the supply line must be prevented by covering to prevent product contamination and electric shock accidents.

• When using Drum or DPP, check the enclosed installation and handling manual, and use it after proper installation.

■ Storage

• Do not stock Drum or DPP packaging palettes more than 2 layers and Spool or Wire basket packaging palettes more than 3 layers. To prevent damage to the products and external packaging.

• Store the product without removing the packaging to prevent air contact.

• To prevent product packaging damage and condensation due to moisture. Keep the product at a relative humidity of less than 50%

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The Management System of KISWEL LTD, 704, Gongdan-ro, Seongsan-gu, Changwon-si, Gyeongnam 51544, Republic of Korea, 70, Saebyeok-ro 63beon-gil, Sasang-gu, Busan 47018, Republic of Korea has been approved by Lloyd's Register Quality Assurance to : IATF 16949:2016, ISO 14001:2015, applicable to : Manufacture of solid welding wires & rods, flux cored wires, submerged arc welding wires & fluxes, stainless steel welding wires & rods and covered electrodes.
More information : www.kiswel.com

