



G-TECH 430

SMAW

FERRITIC - MARTENSITIC STAINLESS
STEEL
430

DESCRIPTION

Rutile coated electrode

Its rutile-basic coating ensures an excellent combination of welding performance in all positions, except for vertical down, and a high resistance to cracking providing smooth arc transfer. Excellent weldability with a spatter free arc, self-releasing slag producing a very smooth bead appearance. Resistant to hot oxidation, specific for repairs and for coatings on continuous casting for steel mills, sliding guides, etc .

SPECIFICATIONS

ISO 3581-A	E 17 R 52	AWS A5.4	E430-16
DIN 8555	E 5-UM-200-PR	Werkstoff Number	-
Certifications	-	Shielding	-
Positions	PA, PB, PC, PD, PE, PF	Current	DC+, AC

ASME QUALIFICATIONS

F-No (QW432)	4	FERRITE	-	PREN	17	HARDNESS	220HB - 250HB
A-No (QW442)	7						

CHEM. COMP. %

	DEFAULT
C	0.11
Mn	0.7
Cr	17
Si	0.8

MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength R _m MPa	450	500
Yield strength R _{p0.2} MPa	300	420
Elongation A (L ₀ =5d ₀) %	15	15
Impact Charpy ISO-V	-	-
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

	2.5 mm	3.2 mm	4 mm	
Ampere	50A - 80A	80A - 110A	100A - 160A	150A -
Voltage	-	-	-	
Packaging	53 pcs/kg	27 pcs/kg	19 pcs/kg	12 p
Packaging Type	Carton box	Carton box	Carton box	Carto

ANTI-WEAR CHARACTERISTICS

Adhesive wear	▲▲▲▲▲
Abrasive wear	▲▲▲▲▲
Impact	▲▲▲▲▲
Corrosion	▲▲▲▲▲
Heat	▲▲▲▲▲

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The information in this datasheet is the result of detailed research and is considered accurate as of the publication date. However, we cannot guarantee its complete accuracy, and it is subject to change without notice. Actual results may vary due to many factors like welding procedures, material composition, temperature conditions, bevel configuration, and specific manufacturing techniques. We accept no liability for any errors or omissions in this datasheet. For the most current information, please visit www.daikowelding.com.

DAIKO®



430

DESCRIPTION

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APPLICATION

This is a ferritic stainless steel exhibiting good ductility in the heat-treated condition. Applications include welding similar parent metal, weld overlay, and thermal spraying, with a primary use in surfacing sealing faces of gas, water, and steam valves to achieve stainless and wear-resistant overlays. Welding with this filler metal typically necessitates preheating, normally 150°C, and postweld heat treatment for optimal mechanical properties and corrosion resistance. The balanced composition ensures sufficient chromium for corrosion resistance in usual applications while retaining ample ductility in the heat-treated state. Additionally, there are stabilized versions with Niobium and/or Titanium designed for the automotive industry, particularly in exhaust system production, requiring similar preheating and postweld heat treatment.

ALLOY TYPE

Ferritic stainless steels.

MICROSTRUCTURE

Ferrite.

MATERIALS

Surfacing can be performed on all weldable base materials, unalloyed and low-alloyed. Welding of corrosion resistant chromium steels as well as other similar-alloyed steels with C-contents up to 0.20% (repair welding).

EN W.Nr.: 1.4001 (X7Cr14), 1.4006 (X12Cr13), 1.4057 (X17CrNi16-2), 1.4000 (X6Cr13), 1.4002 (X6CrAl13), 1.4016 (X6Cr17), 1.4059 (X17CrNi16-2), 1.4509 (X2CrTiNb18), 1.4510 (X3CrTi17), 1.4511 (X3CrNb17), 1.4512 (X2CrTi12), 1.4520 (X2CrTi17), 1.4712 (X10CrSi6), 1.4713 (X10CrAlSi7), 1.4724 (X10CrAlSi13), 1.4742 (X10CrAlSi18).

ASTM: 403, 405, 409, 410, 429, 430, 430Cb, 430Ti, 439, 431, 442.

UNS: S40300, S40500, S40900, S41000, S42900, S43000, S43035, S43036, S43100, S44200.

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