DAIKOWS 309H

SAW

AUSTENITIC STAINLESS STEELS
309H

DESCRIPTION

Solid wire for high temperature applications, dissimilar joints and for overlaying

High 0.04%-0.08% carbon version of 309 stainless steel consumables for high-grade applications service temperature for analogous, heat resisting rolled, forged and cast steels as well as for heat resisting, ferritic CrSiAl steels. Mainly used in annealing shops, hardening shops, steam boiler construction, the crude oil industry and the ceramics industry. Austenitic deposite with a ferrite content of approx. 8 %. Preferably used for applications involving the attack of oxidizing gases. Scaling resistance up to +1000 °C.

SPECIFICATIONS

ISO 14343-A	S 23 12 H	**AWS A5.9**	ER309
DIN	-	**Werkstoff Number**	-
Certifications	-	**Shielding**	DAIKOFLUX 900-W
Positions	PA, PB, PC	**Current**	DC/AC

ASME QUALIFICATIONS

F-No (QW432)	6
A-No (QW442)	8

FERRITE

~8 FN

PREN

22

HARDNESS

85HRB

CHEM. COMP. %

	DEFAULT
C	0.1
Mn	0.8
Ni	11
Cr	22
P	0.015
S	0.01
Si	1.6

MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength R_m MPa	550	640
Yield strength $R_{p0.2}$ MPa	350	400
Elongation A (L_0=5d_0) %	25	35
Impact Charpy ISO-V	-	81J @ 20°C
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

	2.4 mm
Ampere	300A - 400A
Voltage	27V - 33V
Packaging	Ø 2,0÷4,0mm
Packaging Type	K415 spool and drums.

V 01/2024

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

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APPLICATION

"Designed for diverse applications, this GMAW wire is suitable for heat-resisting rolled, forged, and cast steels, along with heat-resisting, ferritic CrSiAl steels. Its versatility extends to applications in annealing shops, hardening shops, steam boiler construction, the crude oil industry, and the ceramics industry. Particularly effective in environments with oxidizing gases, nitrogen, and gases containing small amounts of oxygen. Exhibiting exceptional scaling resistance up to 1050 °C, it is a preferred choice for high-temperature applications, offering adaptability in dissimilar joints and overlaying. Recommended preheating and interpass temperatures range from 200 to 300 °C, specifically for ferritic steels.

ALLOY TYPE

High carbon version of 309 stainless steel for high-grade applications service temperature.

MICROSTRUCTURE

Austenitic deposited with a ferrite content of approx. 8 %

MATERIALS

EN W.Nr.: 1.4821 (X15CrNiSi25-4), 1.4823 (GX40CrNiSi27-4), 1.4713 (X10CrAlSi7), 1.4724 (X10CrAlSi13), 1.4742 (X10CrAlSi18), 1.4762 (X10CrAlSi25), 1.4710 (GX30CrSi7), 1.4740 (GX40CrSi17).
ASTM: 327, A297 HC.

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