

## 309 H

**CATEGORY** GMAW-GTAW Solid wires

**TYPE** Solid stainless steel filler metal with high carbon content for high temperature applications.

**APPLICATIONS** Cladding on low alloyed steels in case a 18/8 CrNi layer is required in the first layer. Scale resistant up to 1050° C., Buffer layers before hard facing, cladding and joining of similar austenitic steels, specially recommended for use in oxidizing gasses with nitrogen and gasses containing small amounts of oxygen.

**PROPERTIES** High mechanical properties and very good weldability, suitable for high operating temperatures up to 1100°C.

**CLASSIFICATION**

AWS	A 5.9: ER 309
EN ISO	14343-A: G 22 12 H
DIN: W.Nr.	1.4829
DIN	8556: SG X12CrNi 24 12

**SUITABLE FOR** 1.2780, 1.4541, 1.4550, 1.4712, 1.4724, 1.4742, 1.4825, X15CrNiSi20 12 (1.4828), G-X 40 CrNiSi20 9 (1.4826)

**APPROVALS** CE approved

**WELDING POSITIONS:**



**WELD METAL ANALYSIS %**

C	Mn	Si	Cr	Ni	Mo
<0.12	1.0-2.5	0.50	23-25	12-14	-

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				+20°C	-40°C	-60°C	
AW	>400	550-700	>25	>70			

AW: as welded

**WELDING PARAMETERS / PACKING**

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	spool type	kg / spool	kg / pallet
0,8	15-24	55-160	K-300	15	1080
1,0	15-28	80-240	K-300	15	1080
1,2	15-29	100-300	K-300	15	1080

**REDRYING TEMPERATURE** not required