

310

CATEGORY GMAW-GTAW Solid wires

TYPE High heat resistant stainless steel welding wire.

APPLICATIONS Common applications include industrial furnaces, annealing chambers, fused salt treatment installations and boiler parts, as well as heat exchangers.

PROPERTIES Solid drawn ,corrosion-resistant, chromium-nickel wire for welding heat-resistant austenitic steels of the 25% Cr, 20% Ni types. 310 has good general oxidation resistance, especially at high temperatures, due to its high Cr content. The alloy is fully austenitic and is therefore sensitive to hot cracking. The temperature limits for use under intermittent oxidation depend on cycle frequency. In no case shall a temperature of 1000°C be exceeded. This alloy can withstand relatively severe thermic shock, and is superior to type 309 L.

CLASSIFICATION

AWS	A 5.9: ER 310
EN ISO	14343-A: G 25 20 Mn
DIN: W.Nr.	1.4842
DIN	8556: SG X12CrNi 25 20

SUITABLE FOR Heat resistant stainless steels: 1.4823, 1.4826, 1.4828, 1.4832, 1.4835, 1.4840, 1.4841, 1.4846, 1.4848, 1.4837, 1.4710, 1.4713, 1.4724, 1.4726, 1.4742, 1.4745, 1.4762, 1.4845, 1.4849, 253MA, X15CrNiSi 25 20, G-X40CrNiSi 25 12, G-X15CrNi 25 20

APPROVALS CE approved

WELDING POSITIONS:



WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	Cu
0.10	1.8	0.5	26	21	<0,3	<0,3

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness H _{Rc} / HV
				+20°C	-40°C	-196°C	
AW	>390	>590	45	175		60	

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A)	spool type	kg / spool	kg / pallet
0,8	16-22	50-140	K-300 / Drum	15 / 250	1080 / 1000
1,0	16-24	80-190	K-300 / Drum	15 / 250	1080 / 1000
1,2	20-28	180-280	K-300 / Drum	15 / 250	1080 / 1000

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: M13