

SA 310

CATEGORY SAW Arc Submerged

TYPE High heat resistant stainless steel welding wire for submerged arc welding

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: S 25 20
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 DEPOSIT WEIGHT %

C	Mn	Si	Cr	Ni	Mo	Cu
0.10	1.8	0.5	26	21		

MECHANICAL PROPERTIES

Heat Treatment	Rp _{0,2} (N/mm ²)	Rm (N/mm ²)	A5 (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				20°C	-40°C	-196°C	
AW	>390	>590	45	175		60	

AW: as welded

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters		spool type	Packing	
	Voltage (V)	Current (A)		kg / spool	kg / pallet
1,6	27-30	200-300	K-415	25	1000
2,4	29-33	300-400	K-415	25	1000
3,2	29-33	350-500	K-415	25	1000
4,0	30-36	400-600	K-415	25	1000

REDRYING TEMPERATURE Not required