

ER19-10H

MIG/GMAW and TIG/GTAW wire for austenitic stainless steel

Product name	IABCO ER19-10H		
Classification EN ISO	14343-A:	G/W 19 9 H	
Material No.	-		
Classification AWS	A5.9:	ER19-10H	
Approvals	-		
Applications	For welding nominally 18%Cr-8%Ni austenitic stainless steel base materials with carbon $\geq 0.04\%$. ER19-10H is not used for corrosion resisting applications but for high temperature applications where good oxidation resistance and creep strength are required. Typical applications include petrochemical plant eg. cat crackers. Typical service temperatures up to $\sim 800^{\circ}\text{C}$.		
Base materials	For high carbon ($\geq 0.04\%$) 18:8 austenitic stainless steels. ASTM: 304H, CF10. EN: 1.4948. UNS: S30409. Also suitable for other high carbon ($\geq 0.04\%$) stainless steels: 321H, 347H.		
Typical analysis of wire, weight %	C:	0.05	Si: 0.40
	Mn:	1.80	Cr: 19.6
	Ni:	9.2	Cu: 0.1
	Ti:	0.01	Nb: 0.01
Typical heat treatment ⁽¹⁾	Preheat: Not required. Interpass temperature: 250°C . PWHT: Not required.		
Mechanical properties of weld deposit ⁽²⁾	0.2% proof stress, $R_{p0.2\%}$: $\geq 350\text{MPa}$. Tensile strength, R_m : $\geq 550\text{MPa}$. Elongation, 4d/5d: $\geq 30\%$.		
Other products	TIG/GTAW & MIG/GMAW: ER308H, ER347H, ER316H.		

Notes (1) Application codes and project specifications should always be referred to for specific requirements.

(2) Actual mechanical properties will be dependent on specific welding procedure (including shielding gas, flux, PWHT etc) and should always be confirmed by approval of an appropriate welding procedure.