

316H TIG

CATEGORY GMAW-GTAW Solid wires

TYPE Solid stainless steel welding wire with high carbon content

APPLICATIONS Used for welding steam piping, superheater headers, furnace parts, some gas and steam engine turbine components, in the petro-chemical industry, in fossil and nuclear fuelled power stations.

PROPERTIES 316H is designed for welding 316/316H austenitic stainless steels operating at high temperatures (500-800°C) under long term creep conditions. This filler metal can also be used for welding 321/321H and 347/347H grades in high temperature structural service. This is particularly important in thick highly restrained weldments, since the possibility of premature service failure by intergranular HAZ cracking is reduced by using more ductile weld metal rather than 347H.

CLASSIFICATION

AWS	A 5.9: ER 316H
EN ISO	14343-A: W 19 12 3 H 14343-B: SS 316H
DIN: W.Nr.	1.4403
DIN	8556: SG X5CrNiMo 19 11

SUITABLE FOR AISI 316, 316H, 347, 347H, 321, 321H, CF10M, BS 316S51, 316S52, 316S53, 316C16, 316C71, UNS S31609

APPROVALS CE approved

WELDING POSITIONS:



ALL-WELD METAL ANALYSES

C	Mn	Si	Cr	Ni	Mo	Cu	P	S	FN
0.04-0.08	1.0-2.5	0.30-0.65	18-20	11-14	2-3	<0.03	<0.03	<0.02	3-8

MECHANICAL PROPERTIES (TYPICAL)

Heat treatment	RP0,2 (N/mm ²)	Rm (N/mm ²)	A5 (%)	Impact energy (J) ISO-V			Hardness HRc / HV
				+20C	-40°C	-60C	
AW	>460	>650	>35				

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters			Packing	
D (mm)	Voltage (V)	Current (A) DC-	Length (mm)	kg / tube
1.6	14-18	80-130	1000	5
2.0	15-20	120-175	1000	5
2.4	15-20	150-220	1000	5

REDRYING TEMPERATURE Not required

GAS ACC. EN ISO 14175: I1